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ABSTRACT

Structures that schools can change to produce more positive effects on student learning and development are referred to in this report as TARGET (Tasks, Rewards, Grouping, Evaluation, and Time) structures. The first of two chapters, "Effective Schools or Effective Students: Dealing with Diversity", stresses the need for including in the current effective schools movement a parallel effective students movement. Section titles include: Recognizing Student Diversity; Recognizing Alterable School and Classroom Structures; Recognizing the Need for Research and Evaluation; The Social Organization of Remediation; and Support for an Effective Schools Movement. The second chapter, "Family Structures and Student Motivation: A Developmental Perspective", initiates a discussion of the family's role in motivating students to learn. The chapter focuses on home TARGET structures that are analogous to school structures for their part in organizing instruction and classroom management. Section titles include: (1) Family Structures and Student Motivation; (2) TARGET Structures in Families; (3) Links among TARGET structures; (4) TARGET Structures at Home and Student Development; (5) Implications for Research; and (6) Discussion. The first chapter includes 110 references, the second, 94. (SKC)

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Report No. 6

January, 1987

TARGET: AN EXAMINATION OF PARALLEL SCHOOL AND FAMILY STRUCTURES THAT PROMOTE STUDENT MOTIVATION AND ACHIEVEMENT

Joyce L. Epstein

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The Center

The mission of the Center for Research on Elementary and Middle Schools is to produce useful knowledge about how elementary and middle schools can foster growth in students' learning and development, to develop and evaluate practical methods for improving the effectiveness of elementary and middle schools based on existing and new research findings, and to develop and evaluate specific strategies to help schools implement effective research-based school and classroom practices.

The Center conducts its research in three program areas: (1) Elementary Schools, (2) Middle Schools, and (3) School Improvement.

The Elementary School Program

This program works from a strong existing research base to develop, evaluate, and disseminate effective elementary school and classroom practices; synthesizes current knowledge; and analizes survey and descriptive data to expand the knowledge base in effective elementary education.

The Middle School Program

This program's research links current knowledge about early adolescence as a stage of human development to school organization and classroom policies and practices for effective middle schools. The major task is to establish a research base to identify specific problem areas and promising practices in middle schools that will contribute to effective policy decisions and the development of effective school and classroom practices.

School Improvement Program

This program focuses on improving the organizational performance of schools in adopting and adapting innovations and developing school capacity for change.

This report, prepared by the parent involvement project of the Elementary and Middle School Programs, presents two papers that examine common structures that exist in both schools and families and their implications for student achievement and motivation. The structures include tasks, authority, rewards, grouping, evaluation, and time -- the TARGET structures.

Abstract

For many years, the Center has conducted research on the alterable variables of schools and classrooms -- the structures that schools can change in order to produce more positive effects on student learning and development.

This report refers to these structures as the TARGET structures -- tasks, authority, rewards, grouping, evaluation, and time. Each of these structures can be changed by schools in ways that will promote student learning and development. The first paper in this report examines these TARGET structures as the basic building blocks of effective school and classroom organization, and relates the TARGET structures to the need to deal with student diversity and develop more effective students.

The TARGET structures and their influence are not unique to schools, however. Parallel structures exist in family relationships and, as in schools, the structures can be changed in families in ways that promote student motivation and thus improve student learning and development. The second paper examines the existence and influence of the TARGET structures in family relationships.

These papers will appear as separate chapters in forthcoming volumes. They are presented together in this report to emphasize the common aspects of schools and families -- the TARGET structures -- that both schools and families can change in order to improve student motivation, learning, and development.

Effective Schools or Effective Students:
Dealing with Diversity

Joyce L. Epstein

The Johns Hopkins University
Center for Research on Elementary and Middle Schools

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Effective Schools or Effective Students: Dealing with Diversity <1>

Joyce L. Epstein

Thinking about effective schools, I am reminded of some schools I once studied in maximum security prisons. One warden complained about the students' achievement: "We have a good school here," he said, "but we get the wrong kind of students." The prison may have had an effective school. There was strong leadership, an emphasis on basic skills, frequent testing, and high expectations for success--all characteristics of theoretically effective schools. But the prison school was not effective for its students. As in many places, the administrators and teachers expected the students to fit the school.

Not all schools are like that prison's school. For many students, schools are highly successful, liberating places. But for many other students, schools as they are currently organized are not effective. Many students are neither supported nor challenged by their schools' instructional and social programs.

The recent surge of reports and books on school reform (Boyer, 1983; Goodlad, 1983; National Commission on Excellence in Education, 1983; Sizer, 1984; Twentieth Century Fund Task Force, 1983), and the popular "effective schools literature" (Edmonds, 1979a,b; Purkey & Smith, 1983; Weber, 1971), have focused attention on school improvement at the federal, state, and local levels (Children's Defense Fund, 1985; Education Week, 1985; Olson, 1986). But the suggested reforms and the resulting swift actions from states and school districts have missed some important aspects of effective education. The most glaring omission is the lack of adequate attention to students.

The effective schools movement requires an auxiliary "effective students movement." There are three reasons for this need. First, there has been too much emphasis on the practices of teachers and principals and too little on the impact of those practices on the outcomes of schooling for different groups of students. A focus on students would recognize the wide and important diversity in students' abilities, needs, and interests in any year in school, and the increasing diversity in students' skills and learning histories as they proceed from elementary through middle and high school.

Second, there has been too much attention to universal tenets for effective schools and not enough to the manipulable or alterable structures in schools and classrooms. More attention to learning environments would allow teachers and principals to organize programs that are responsive to more students and that build specific academic and social skills, attitudes, and behaviors.

Third, there has been too little attention to the contributions needed from research and evaluation to increase understanding of the effects on diverse students of particular organizational designs and teaching practices. Schools need new measures of processes and outcomes in addition to achievement tests in order to monitor how their programs, teaching, and administrative practices affect the opportunities, experiences, achievements, attitudes, and social development of different groups of students. And, they need to use the information they collect to continue to improve their programs for effective students.

It is not mere semantics to redirect attention from effective schools to effective students. The goal to develop more effective students is different from the goal to make an effective school. It is possible and even common to have effective teachers who "cover" their subjects well, but whose classes are filled with ineffective students. Effective schools may have students who, on average, score at some acceptable level on achievement tests. But averages are often deceptive, hiding large numbers of students who are being ignored, pushed back, or pushed out of the school. Effective students are enthusiastic about learning and learn how to use resources in and out of school to assist their own progress. This chapter examines the three issues that could move discussions of effective schools toward attention to effective students--student diversity, alterable school and classroom environments, and comprehensive research and measurement models.

1. Recognizing Student Diversity

Discussions of effective schools must include questions about effective students. For which students are the schools already successful? For which students are schools ineffective? Should the programs, schedules, methods of instruction, and climate in schools be changed for some or all students? How will educators know what to change and when to stop changing programs? How can schools deal with the differences among students at each grade level and across grade levels in order to improve all students' success and positive attitudes toward school and learning?

Schools are reasonably successful with most students who are at or above grade level, especially if the students are motivated to learn and have decided to attend college. For these students there is an easy fit between the schools' and students' goals for education. These effective students learn how to learn, are rewarded and recognized for their achievements, and are included in school life.

Schools are acceptable--not really "effective"--for most students who are average in academic skills, reasonably well-behaved, socially competent, and who have the general goal of completing high school and moving on to work, military service, or some post-secondary education. For these students, there is a loose but troubling fit between the instructional program and the students' needs, abilities, and often formless goals. Elementary, middle and high schools serve these students without distinction, and the students respond without excitement. The students are rarely rewarded or punished for their academic progress, and most of them stand on the periphery of school life.

Schools are unsuccessful and unappealing places for most students who are below average in academic skills, failing one or more subjects, socially immature or isolated, or without clear goals for life after high school. For these students there is a poor fit and few connections between the schools' programs and the students' needs. Neither the academic nor the social organization of the school is designed to help these students define or attain success. The students receive few rewards and many punishing evaluations, and are largely excluded from school life. This is true at all levels of schooling but becomes especially important in high school, where little remedial instruction is offered in ways that could reestablish poor students as effective learners.

These three main groups are further diversified because students in each category may be stronger or weaker in one subject or another, with good or poor attitudes about school, learning, and themselves. Thus, some high-achieving students may be apathetic about some subjects; some average students may have sincere interest in learning and high rates of participation in activities; and some below-average students may have high self-esteem and dogged perseverence. Other combinations of academic skills, social skills, and personal characteristics define the scope of student diversity that exists in all schools, often unheeded, and almost always unmeasured.

For unsuccessful or unmotivated students there have always been two alternatives -- change the students or change the schools. Usually, educators try to change the students to make them fit the established programs of the schools. In this approach, unsuccessful students are directed, implored, or punished to become more like successful students. The teachers' programs and practices remain unchanged. For a few students this strategy works. Marginal students who "buckle down" may pass their courses and develop better work habits and more positive attitudes about learning. But most students who are barely passing or clearly failing need more than an order to shape up or ship out. In 1982, for example, 34%, 48%, and 60% of U.S. white, black, and Hispanic students, respectively, had not graduated from high school by age 19 (National Center for

Educational Statistics, 1985). Large numbers of students--almost 40% of the age cohort of 18 and 19 year olds--did not succeed in schools as they are typically organized.

The alternative approach for correcting the lack of fit between schools and unmotivated or unsuccessful students is to change the schools. Changes in school and classroom organizations can be made to help more students master prerequisite skills, basic requirements, and higher-order skills, to reward all students for the progress they make, and to enable all students to participate in the academic and social life of the school. There are several sociological, psychological, and anthropological perspectives on the importance of alterable variables in schools and classrooms, including Bloom (1980), Boocock (1979), Carroll (1963), Doyle (1985), Gump (1980), Hamilton (1983), McPartland, Epstein, Karweit, & Slavin (1976), and Minuchin (1977). The theory is that by changing the schools--by creating, implementing, testing, and improving new organizational designs--more students will become effective learners. This literature is largely untamed--with different terms and emphases used in the various perspectives. In the next sections, we suggest some connections between dimensions of organizational structure and student performance that may help educators deal with diversity and promote more effective students.

2. Recognizing Alterable School and Classroom Structures

The basic building blocks of school and classroom organizations are the task, authority, reward, grouping, evaluation, and time (TARGET) structures <2>. These six broad, manipulable structures form a framework that can help systematize and clarify the many perspectives and long lists of suggested school reforms that have inundated educators.

Task structure (T) concerns what students are asked to learn and what assignments they are given to do. It includes the content and sequence of the curriculum, the design of class work and homework, the level of difficulty of the work, and the materials required to complete assignments. These alterable characteristics of the task structure may be varied to accommodate student diversity. Teachers can give every student the same work or give different assignments to groups or individuals, concentrate on the printed or spoken word or the visual or performing arts, use one text or a variety of materials that include one or many levels of difficulty or perspectives on a topic. Tasks can proceed from grades 1 to 12 in a logical, sequential, and cumulative curriculum or can be repetitive or disjointed. Tasks can be designed that have meaning and importance to some or all students. New knowledge can be obtained from lectures by teachers and recitations by students, project or group work by students, or paper or computer-based seatwork by students. The work may be limited to basic skills or go beyond the basics to higher-order thinking skills and creative work. The tasks may vary in the degree of independence or dependence required for completion, with some assignments conducted by individuals, in pairs, teams, or small or large groups. Variations in the sequence, scope, design, difficulty, variety, meaning, media, passivity, and interdependence of tasks affect whether activities and arrangements are challenging, enjoyable, and appropriate for students and whether students can learn academic or other important skills from the tasks. (For other perspectives and studies on task structures see

Bidwell, 1972; Bossert, 1979; Cohen, 1980a; DeVries & Edwards, 1973; Doyle, 1983; Dreeben, 1968; Rosenholtz & Rosenholtz, 1981; Slavin, 1984; and Tammivaara, 1982.)

Most educators believe that tasks should be appropriate and challenging for students, according to their prior levels of ability and readiness. But to assure maximum progress in learning over one school year, teachers need to measure and work from the students' starting places, with an understanding of all aspects of the task structure. If the task structure is ignored, teachers may have to accept the fact that their instruction--too easy for some and too advanced for others--is not producing many effective students.

Authority structure (A) concerns the kind and frequency of participation that occurs in academic and other programs in school, including the distribution of decision-making among administrators, teachers, students, parents, and others in the school community. Participation and decision-making opportunities are alterable features of the authority structure that vary considerably from school to school, and among classrooms within schools. In some settings, authority is exercised only by the teacher; in other settings, teachers and students share responsibilities for making choices, giving directions, monitoring work, setting and enforcing rules, establishing and offering rewards, and evaluating student success and teacher quality. In some schools and classrooms, parents, businesses, and others in the community are included in ways that alter the typical structure of school authority. Variations in the structure of authority in schools make students more active or passive learners, more confident investors in their learning, and in this way, affect student attitudes and achievements.

Students may be "active" in responding to questions (as in direct-instruction teaching practices) but this is a limited part of learning. A broader definition of students as active learners includes participation with teachers in selecting topics for study and discussion, in deciding how long to work to master skills before being evaluated, when to continue with deeper study of a topic, when to ask for help to understand difficult concepts, and many other decisions. Like adult workers, students may be more effective when they feel some control over own activities and progress. (For several perspectives and studies on aspects of the authority structure see deCharms, 1976; Duke & Jones, 1985; Eckstein & Gurr, 1979; Epstein, 1981; Epstein & McPartland, 1979; Metz, 1978; Minuchin, 1977; Schonfeld, 1971; Spady, 1974; Tjosvold, 1978; and Wang & Stiles, 1976.)

One of the most popular emphases in the reform literature has been to call for more active learning by students and less lecturing by teachers (Boyer, 1983; Goodlad, 1983; Sizer, 1984). This goal requires teachers to give students a greater share in decisions and more responsibility for learning. Teachers and administrators can design and test methods to increase active thinking, questioning, opportunities for choice, self-direction, and leadership by all students in a class. If the authority structure is ignored, teachers will include some students and ignore others as active participants in learning, producing only a few effective students.

Reward structure (R) concerns the procedures and practices used to motivate and recognize students for their progress and achievement in school. Schools and teachers can officially reward few or many students for few or many behaviors, achievements, or talents. Tangible and intangible rewards that are more or less valued by the students may be issued for relative or absolute accomplishments, with more or less public attention. Variations in the purposes, types, criteria, publicity, and distributions of rewards may dramatically affect how students feel about themselves as learners compared to others.

Rewards define what the system, school, and teachers consider important, and influence whether and how students invest their time to learn. Schools may reward individuals for earning top grades, contributing to group goals, or making good progress, or other achievements and behaviors. These different emphases promote different investments from students. And, the goals of a school require different investments from the teachers, too. For example, if schools value students helping each other, then teachers need to recognize and encourage cooperation in classrooms as well as in extra-curricular activities and sports. (For a variety of perspectives and studies on reward structures see Ames and Ames, 1984; DeVries & Edwards, 1973; McPartland & McDill, 1977; Michaels, 1977; Nicholls, 1984; and Slavin, 1983.)

All teachers know that students need some recognition for good work in order to become committed to more advanced learning. But in most schools, few students receive official recognition and rewards. Teachers can design and test procedures that appropriately, equitably, and widely acknowledge all students for their efforts and for their actual progress in learning (Beady, Slavin, & Fennessey, 1981; Slavin, 1980). It would help for teachers and students to know where the student started (history), what the student was striving for (plans, goals), and what was accomplished (outcomes), in order to fairly reward improvement. These facts are clear, for example, when records are set in competitive sports, or when students keep track of their "personal best" accomplishments. But of the three elements of evaluation--history, plans, and outcomes--only outcomes regulate the reward structure in most subjects in most schools. If the reward structure is ignored, teachers may find that their distributions of grades, honors, and other awards support and boost the energies of some students, while the same practices alienate and destroy the energies of others.

Grouping structure (G) concerns the way student diversity is distributed. Grouping practices determine how students who are similar or different on particular dimensions (e.g. sex, race, SES, ability, goals, or interests) are brought together or kept apart in schools and in classrooms for instruction and for social activities. Grouping practices determine which students are taught together by the teacher, whether and how group memberships can change, and which students interact and become acquaintances or friends, and how and why students influence each others' behaviors, attitudes, and ideas. (Other perspectives and studies of the effects of grouping on students are found in Barr & Dreeben, 1983; Cohen, 1980b; Epstein, 1985, 1986b; Epstein & Karweit, 1983; Evertson, Sanford, & Emmer, 1981; Hallinan, 1976; Hallinan & Sorenson, 1985; Hamilton, 1983; Haskins, Walden, & Ramey, 1893; Heyns, 1974; Oakes, 1985; Peterson, Wilkinson, & Hallinan, 1984; Rosenbaum, 1980; and Rowan & Miracle, 1983).

The grouping structure involves the placement of students in instructional groups or tracks. Teachers have been said to treat instructional groups differently--giving more time, opportunities for creativity, more work and more personal attention to brighter students, or more encouragement but less work and less interesting assignments to slower students. The group or track to which a student is assigned can dramatically affect the tasks, opportunities for participation, rewards, and evaluations they experience in school. Grouping also concerns the degree of flexibility for students to change track or group memberships. In some schools and classrooms, rigid grouping or tracking, or restrictive prerequisites for joining groups prevents students from changing status from one year to the next, regardless of the students' efforts and accomplishments. In other settings, flexible grouping helps students set goals and plan actions needed to improve their academic status and to change their academic and social peer groups (Epstein, 1985). Finally, teachers' designs for group activities determine the breadth of social exchanges that are possible or encouraged among students. If the grouping structure is ignored, teachers may be reducing student effectiveness by limiting the curriculum, closing students' options for improvement, and by restricting the number and diversity of contacts made with other students. There are strong connections between the grouping and task structures in how students are put to work as individuals, or in homogeneous or heterogeneous pairs, teams, or small or large groups.

Evaluation structure (E) concerns the standards that are set for student learning and behavior, the procedures for monitoring and judging the attainment of those standards, and the methods for providing information about performance for needed improvement. These standards and judgments may lead to rewards or punishments, and so the evaluation structure is closely linked to the reward structure.

Teachers' evaluations of students' academic, social, or personal skills may be public, private, or personal. Judgments may be based on comparative or individual standards. Teachers may make frequent or infrequent evaluations, based on subjective or objective criteria. Reports may be explicit or concealed, offering students much or little useful information about their current status and about ways to maintain or improve their status. These characteristics of the evaluation structure--standards, monitoring, and reporting procedures may have different effects on student motivation and learning. (For other perspectives and studies of the structure of evaluation or studies of effects on students, see Bloom, 1980; Entwisle and Hayduk, 1982;Gottfredson, Hybl, Gottfredson, and Casteneda, 1986; Natriello and Dornbusch, 1984; Stipek, 1984; Weiner, 1979.)

Public evaluation is open for others to hear. Many evaluations in school are made in front of classmates during lessons, in other school settings, and in front of other teachers or administrators. Private evaluations are between the teacher and student, principal and student, or student and student in conversations, formal conferences, or in comments written on students' papers, but without other audiences. Personal or intrinsic evaluations are conducted by students in accordance with their own goals. Students may internalize teachers' or parents' values or goals about schooling, but personal evaluations are conducted by monitoring the quality of one's work, setting personal goals, and directing one's own actions to improve or maintain standards.

An effective evaluation structure--with important, challenging, yet attainable standards, fair and clear procedures for monitoring progress, and explicit and frequent information about progress--should lead students to a higher level of understanding about their own effort, abilities, and improvement. An ineffective structure can embarrass or confuse students and misdirect their efforts for improvement--by withholding information on what and how to improve, or by setting standards too high to attain. If the evaluation structure is ignored, teachers should know that many students will experience failure, disappointment, or alienation in school.

Time structure (T) concerns the schedules set for students' work on tasks. If the time allocated is too short, or if the pace of instruction is too fast, only a few students will finish the work and qualify for rewards. If too much time is allocated or the pace is too slow, useful time will be wasted and school work will be boring for many students. Time for learning is alterable--it can be arranged and changed to accommodate few or many students' rates for learning. (For different perspectives and studies on the structure of time see Arlin, 1979; 1984; Bloom, 1976; Carroll, 1963; Fisher, Berliner, Filby, Marliave, Cahern, & Dishaw, 1980; Karweit, 1981, 1985; and Stallings, 1980.)

There are important connections between the time and task structures (e.g., the design of assignments within fixed time periods); time and authority structures (e.g., options for self-directed activities if students finish work ahead of time); and time and grouping structures (e.g., time allocated for different instructional groups, time per pupil in each group, and the order of teacher's attention to various instructional groups); and time and evaluation structures (e.g., restrictions and opportunities to meet standards for mastery and assessment. For example, students are expected to learn or master material in a defined period of time. In some settings, if they finish early, students may not go on to new or advanced material beyond the lesson, unit, or grade level. In other settings, students are permitted to move as quickly as they can through an endless set of skills in and beyond their current grade level. And, Doyle, 1985, notes that flexibility in time allocations may make class look poorly managed by the teacher, but may, in fact, result in better learning by more students.

Teachers can allocate more or less time in and out of class for students to complete their work. They can limit interruptions and non-instructional activities during class time. Although schedules are currently set to establish time for teaching (e.g. a six- or seven-period day), an effective students movement would direct attention to the variation in time for learning needed by students with different prerequisite skills. If they ignore the structure of time, teachers deny differences in students' learning rates and will reduce the number of effective students in their classes.

Summary: TARGET Structures as Alterable Variables

Sizer (1984) suggests that students in school are too docile, compliant, and without initiative. But outside the classroom, students are neither docile nor compliant. Therefore, their behavior and attitudes in school must have something to do with how the class is organized and what students are required or permitted to do. This includes how tasks are designed (T), whether and how authority allows students to participate (A), why and when they are recognized and rewarded (R), how they are grouped to interact with others (G), how they are evaluated and given information and opportunities to improve (E), and how their different requirements for time to work are respected (T). We consider next how the TARGET structures can be changed within and across grade levels in order to meet the demands of student development and diversity.

Linking the TARGET Structures to Student Development

Schools can organize these key, manipulable structures in ways that are developmentally responsive to students' diverse abilities and needs (Lipsitz, 1984). Child and adolescent development research documents students' increasing independence and responsibility, accuracy in self-assessments, accumulated knowledge, understanding of abstract concepts, resolution of conflicts, and appreciation of the strengths of others. These skills can be strengthened when schools organize, monitor, and continually change the TARGET structures at each grade level and, as needed, within grade level, so that learning opportunities are developmentally appropriate for the students.

Task (*T*) *structures and student development*. In addition to basic skills, students need to build problem solving skills, analytic thinking, planning, and critical and creative thinking skills. As they mature, students need to identify and develop individual talents and specialties by going beyond basic skills in some areas of interest. Schools can meet developmental demands for knowledge and thinking skills by sequencing academic and extra-curricular tasks to increasingly challenge all students to think, plan, study, and create.

In many schools, students at all grade levels and subjects are assigned boring, repetitive, or disjunctive textbook and workbook assignments. The tasks are not designed to capture students' interests, encourage creativity, generate commitment to deeper study, or build on new capablities of older students. Because all schools seek to improve student achievement, teachers need to pay special attention to the structure of tasks to provide the appropriate levels of instruction for all students, change the quality of tasks to become increasingly abstract and challenging, and create supportive remediation and review programs for students at risk of failing.

Authority (*A*) *structures and student development*. With age, all students need more opportunities to develop responsibility, independence, and self-direction. Students need to develop leadership skills and the ability to recognize and respond to effective leadership. Eccles and her associates (Eccles, Midgley, and Alder, 1984) found that in many junior high schools there is an unmet need for increasing autonomy. Contrary to the expected developmental patterns, young children are often given more choice and opportunities for self direction than older students. When authority structures are not responsive to student growth and changing needs, student attitudes toward school and toward teachers become increasingly less positive (Epstein, 1981; 1983).

Most schools take the initiative for learning out of the students' hands, placing the authority for decisions about learning under the teachers' total control or by offering responsibilities to a few student leaders. In many schools, _active teaching_ is given more consideration than _active learning_. The common fear is that increasing the students' share in decisions that affect them will reduce the teacher's "authority." Other schools have demonstrated, however, that increasing participation by students, parents, businesses or others in the school community, can _increase_ the teacher's professional status by creating a more complex role for the teacher as a manager of many educational resources to promote effective learning for all students (Epstein, 1986a). Teachers and administrators can examine how authority is distributed in their schools, and how to incrementally and sequentially increase shared teacher-student decision-making about school goals, programs, scheduling, courses, and other policies that affect students to match the development and need for increasing independence--not only for the brightest students, but for all.

Reward (_R_) _structures and student development_. As students mature they must develop strong self-confidence and clear self-concepts of their abilities as students and as citizens. They begin to understand their own strengths and weaknesses, how they compare to other students, and how to invest their time in school subjects or non-school subjects. Schools can meet students' needs for increased self-confidence and recharge their motivation to learn by focusing rewards on change and improvment as well as excellence, and by increasing students' understanding of the intrinsic rewards in learning.

Most reward systems in schools have little influence on most students' behavior, achievement, and motivation because rewards are distributed to relatively few students, the same students over the years, and for relatively few accomplishments (e.g., sports and high achievement). Because most rewards are made for the highest, the most, and the best (and not for the greatest gains, the most change, or the newest directions), students who start out lower than other students rarely reach positions worthy of acclaim. By rewarding incremental progress, schools could help more students develop an appreciation of their abilities as learners. Because older students are more diverse in their interests and abilities, it is important for schools to increase the degree to which students are recognized and rewarded for multiple talents and skills.

Older students need to continue to receive official, extrinsic rewards for their progress and achievements, but also need opportunities to build their intrinsic motivation to learn and to feel personal satisfaction from learning. Teachers and administrators can review the distribution of rewards to students at each grade level to consider whether changes in types, reasons, and distributions of rewards are needed to meet the needs of younger and older students.

Grouping (G) structures and student development. As students mature, peers increase their influence on behavior. Students need to build new social skills that increase their tolerance, acceptance, understanding, and appreciation of people who are different from themselves. They must develop abilities to cooperate and resolve conflicts with those whose opinions differ from their own, and decide whether and when to accept or reject peer influence. Over the school years, students' social and academic peer group relations are critical for developing character, personal ethics, and social values.

Few schools systematically organize programs to build students' social contacts and social skills. Most schools leave it up to the students to succeed or fail socially and to make contact with more or fewer students outside their own classes or curricular tracks. Yet, school grouping structures affect which students interact, become friends and influence each other (Epstein and Karweit, 1983). In middle and high schools, teachers and administrators can provide important opportunities for students to broaden their contacts and interactions with others. Also, flexibility of membership in groups and tracks and accompanying programs that help students change and succeed in new groups can influence students' investments in learning and their selection of influential peers and friends (Epstein, 1983; 1986b). Schools can examine their philosphy and design of grouping practices to consider how to structure positive peer group experiences and opportunities for diverse social contacts at each grade level.

Evaluation (E) structures and student development. The evaluation structure can be developmentally responsive to students' increasing abilities to understand the causal connections between their plans, actions, and results in learning. Young children do not usually pay attention to the causes of their performance, nor do they analyze how to improve their work (Harter, 1978). The school's evaluation structure--the form, content, frequency, and pertinence of messages--can assist students to develop skills in self-evaluation and correction. Students increasingly can benefit from information from teachers involving the reasons for judgments and ratings of their schoolwork and opportunities to correct and improve their status. Unfair or unclear evaluations may create critical gaps in students' abilities to execute school assignments successfully, even if the students were initially motivated to learn. Teachers and administrators can increase the extent to which older children are involved and responsible for setting standards and judging their own progress on school work and learning, and planning improvements -- thus, linking authority and evalution structures.

The evaluation process measures performance. Too often, however, students are evaluated after a specific skill has been "taught" (by the teacher) and not necessarily after it has been "learned" (by the student). This distinction may be critical for developing more effective students. Individualized programs (e.g., SRA reading, TAI math, and others) permit students to help decide when they are ready to be evaluated in order to move on to new and more difficult skills. This type of evaluation may produce fairer estimates of student success or failure, and greater understanding by students of their potential and progress in learning.

Time (T) structures and student development. As students develop, they increase their attention spans for learning and increase their capacities to study topics in depth. As important, older students who are slow learners often need more time to master difficult material than they did when they were younger and the material was easier (Arlin, 1984). In the upper elementary, middle and high school grades, then, teachers may need more flexible scheduling policies both to give students time to work longer to master required skills and time to delve deeper into topics that interest them. Presently, the most flexible schedules are in preschools, primary grades, and colleges. Yet, there may be more need for flexibility in learning time in middle and high schools to preserve the potential for students to master basic skills and prerequisite skills for post secondary education and work.

As students develop, they become more diverse in their styles and rates of learning. Schools can design assignments and tests, and structure learning time to respect the increasing differences in students' learning rates. Speed, or finishing within a fixed time frame, is not always the most important criterion for gaining or demonstrating knowledge.

Summary: TARGET Structures and Student Development

As students change, their educating and socializing environments need to change with them. If this does not occur, students are likely to be at a disadvantage on important outcomes of schooling (Epstein, 1984). Because students develop at different rates, schools need to be alert, responsive, and flexible in the design, conduct, and revision of programs for promoting effective student behavior. Student apathy, failure, and dropping out may be due in large part to inappropriate tasks, lack of participation, unresponsive reward structures, restrictive grouping, irrelevant evaluations, inadequate time for learning, and other weaknesses in the TARGET structures. But, these structures can be designed and revised over time to help teachers organize education that is appropriate for the changing characteristics of students across the school years. We recognize, then, not only the cumulative nature of learning and the changing characteristics of individuals, but also the changing designs of school and classroom organizations.

3. Recognizing the Need for Research and Evaluation.

In the previous sections we presented two perspectives: Students are diverse; and, school structures are manipulable and can be responsive to student differences and development. These facts about students and their schools should encourage researchers and educators to take a comprehensive approach in monitoring student characteristics and initial skills, school environments, instructional processes, and many student outcomes. Only through programmatic research and on-site school evaluations will educators know whether changes they make in programs and practices are being implemented as planned, and whether their programs have positive or negative effects on some or all students.

All schools need not--indeed, cannot and should not--follow the same plan for improvement. Initial assessments of students' cognitive, social, and personal characteristics, school programs, problems, and underlying structures for organizing instruction, will help determine the degree of diversity among students and what each school needs to do to improve programs for its population of students.

For example, some schools may already have flexible grouping or tracking policies and programs that encourage and assist students with poor academic status how to move and improve. Other schools with fixed tracking may need to examine their grouping structure to see if it is responsive to the diversity and desires of its student population. This would involve an initial assessment of the school's grouping practices at all grade levels, an account of changes or desired changes in student placements over a school year, and the kinds of intergroup contact that is encouraged or discouraged among students. Or, as another example, schools with students who have poor attitudes about school work and learning may need to devise and test revisions in their reward structures to recapture the enthusiasm and energies of unmotivated students. This activity requires an initial assessment of student attitudes and an account of the kinds, conditions, and distributions of rewards over at least one school term. Changes in the reward structure would need to be planned, implemented, and measured, and changes in student attitudes would be monitored. As a third example, schools with younger or older students may need different plans to revise authority and decision-making structures, with middle and high schools designing ways to give students more opportunities each year to develop independence and to improve student-teacher relations. This activity requires initial and later assessments of the types of decisions teachers and students share, and initial and later measures of student participation, independence, problem-solving skills and attitudes toward teachers.

One common way to identify effective schools has been to examine the relationship between the school SES and achievement at the school or grade level (Brookover and Lezotte, 1979). A school has been considered "effective" if the typical, strong, positive relationship between family socioeconomic status and student achievement declines sharply or disappears, presumably because of school programs and teacher practices. If, however, the focus of attention were on effective students, more sophisticated analyses would be necessary based on individual level measures of student socioeconomic status, achievement test scores, other kinds of achievements and other outcome measures, as well as school and classroom characteristics, including the nature of the TARGET structures in teaching practice. Few schools or districts and few researchers measure all of these factors adequately in their studies of school improvement.

Even simple studies of effective students require analyses of the effect of SES on achievement before and after particular effective schools practices are put in place. This approach would, at least, document whether the effect of SES on achievement changed due to the improvement plan. Researchers could be more specific about the effects of particular organizational strategies on different groups of students by analyzing outcomes by grade level, classroom, and subject; and by race, sex, SES, and starting abilities of students. Because the impact of SES on achievement may not be quickly eliminated even under the best school improvement programs, it is important also to study the independent effects of particular school practices on achievement and other outcomes after SES is accounted for. Thus, better studies of effective students would examine the

SES/achievement relationship over time and the school environment/achievement relationship over time for important subgroups of students.

Just as there is diversity among students and diversity in the design of school and classroom structures, there is diversity in research and evaluation methods that can contribute to an effective students movement. A comprehensive approach to understanding how different students succeed in differently organized programs would include the use of qualitative and quantitative methods. In an effective students movement, information would be needed from broad surveys with analyses of cross-sectional and longitudinal data, from incisive observational studies of students in differently structured classroom contexts, from field experiments that test clear contrasts in TARGET structures for their effects on students, and from self-study analyses and improvement plans conducted by the school administrators and classroom leaders.

Although it is quite likely that the reorganization of TARGET structures help schools deal with diversity and promote more effective students, schools should not initiate improvement programs unless they plan to monitor and evaluate the teachers' practices and the effects on students of particular changes in TARGET structures. This should involve teachers and administrators as evaluators and cooperative projects with school district, state department, or university researchers.

Linking the TARGET Structures to Student Outcomes

One key problem for research and evaluation is identifying, selecting, or developing measures of school and classroom structures and measures of specific outcomes that characterize effective students. Table 1 shows how each TARGET structure is linked, theoretically, to different outcomes that are characteristic of effective students. For example, the task structure (T) and its components are linked to numerous outcomes of knowledge and competence. If the task structure is ineffective, the students will not be engaged in creative and challenging work at the appropriate level of difficulty, and, as a result will not complete as many assignments, will not accumulate as much knowledge, and will not be prepared to make ambitious and informed long term goals.<3>

An effective authority structure (A) that offers students opportunities for decisions about their classwork may build students' positive attitudes toward teachers, self-confidence, and reduce behavior problems in school (Epstein and McPartland, 1979; Epstein, 1981;1983). The authority structure and its components are linked especially to outcomes that measure independent or dependent behaviors.

Table 1 suggests that aspects of the reward structure (R) may especially affect students' confidence or doubt about their work and themselves as students, and may influence students to invest their time in school activities if they know that someone will frequently appreciate and acknowledge their efforts.

Table 1

Theoretical links between TARGET structures and effective student behaviors

Main TARGET structure	Needed measures of effective students
TASKS (T) at appropriate levels of difficulty, including the academic curriculum of basic and advanced skills and extra-curricular activities. Tasks that challenge thinking. Novelty and variety and tasks. Changes in tasks for new levels of ability.	New knowledge; knowing how to learn; mastery of curriculum; completion of classroom and homework assignments; attitudes about school work and homework; development of special interests, talents, advanced skills; persistence in subjects, taking additional courses in a field. Other competence/incompetence outcomes.
AUTHORITY (A) that emphasizes active learning by students and shared decision-making by teachers and students. Opportunities for choice and self-direction. Change in rate and type of participation according to age and new abilities.	Participation in class and in extracurricular activities; choosing topics of interest for deeper study; positive attitudes toward teachers; wise use of counsel and knowledgeable use of "the system"; inititiative in leadership and problem solving activities. Other independence/dependence outcomes.
REWARDS (R) that recognize the daily or periodic progress by all students, as well as excellence in many skills and talents. Change in rewards to meet new values and new abilities.	Positive self concept; feelings of self worth and awareness of progress; commitment to improving school work; positive attitudes toward school and learning; awareness of behavior and actions valued by others; willingness to invest time and effort in tasks. Other confidence/doubt outcomes.
GROUPING (G) that encourages interaction among students with same and different abilities and backgrounds. Flexible grouping or tracking to permit students to improve status. Grouping patterns that change as peer relations change.	Positive attitudes toward peers; tolerance, acceptance, and appreciation of group and individual differences; diversity of contacts; selection of friends and best friends; cooperation, moral commitment, social responsibility; negotiation, compromise, sharing, and other interpersonal skills. Other conformity/individuality/character skills.

EVALUATIONS (E) that establish clear standards and fair procedures for judging success in school skills. Informative messages, for improvement. Standards, monitoring, and information systems that change with student abilities.	Improvement and awareness of progress; internalized standards; ability to compare self and others; fairness in judgments of self and others; plans and actions for improvement; setting future goals. Other measures of understanding/misunderstanding personal skills and progress.
TIME (T) that recognizes and respects diversity in rates of learning, and provides opportunities for intensive study in subjects of interest. Flexible scheduling of courses and assignments. Change in time restrictions to match level of task difficulty and students' levels of ability.	Rates of completion of classwork and homework; understanding and working at one's fastest pace for progress in learning; improved skills in scheduling school work, homework, study, and test-taking; development of expertise in one or more topics or subjects. Other completion/quitting outcomes.

The grouping structure (G) may especially boost or limit students' social skills, social responsibility, and may influence the balance of conformity and individuality behaviors.

The evaluation structure (E) should promote students' self-awareness and sense of certainty about their skills and increase their ability to predict the level of effort needed to reach the standards they and their teachers set. Uncertainty about how to improve may create barriers to action and reduce students' ability and willingness to invest productively in learning.

Time structures (T) that deal with the diversity in students' rates of learning may be especially important for improving the rates of completion of assignments; for building skills in scheduling time for school work, homework, and study; for planning time use during tests and quizzes; and for influencing other outcomes that measure completion vs. quitting behaviors.

Although specific, strong connections between structures and outcomes are suggested in Table 1, we can also see that the structures and outcomes are interconnected. For example, completing homework requires tasks at an appropriate level of difficulty, adequate time, and appropriate and valued rewards. Some schools include homework as 10%-25% of a course grade to officially recognize the importance of completing the work. Homework also is a self-directed, participatory activity in which students control the time they spend on an assignment, and homework may be part of a teacher's parent involvement program, with the parent assuming some of the teacher's authority to monitor and assist learning. And, homework can involve group projects, peer review, coaching and study groups, and other pair, team, or group assignments. A research and evaluation approach to studying effective students would increase an understanding of the interconnections among the TARGET structures and their separate and combined effects on different student outcomes.

Although some research supports the connections suggested in the table, studies are sorely needed at all grade levels and for diverse groups of students to document or to revise these assumptions. We need to build a collection of tests, survey, and observational instruments to help researchers and educators study the extent and importance of the hypothesized connections between different TARGET structures and particular student outcomes.

4. The Social Organization of Remediation

In this section, we examine patterns of diversity in students' skills, and discuss how research and evaluation of the manipulable TARGET structures can help schools deal with diversity through the social organization of remediation.

Identifying patterns of diversity. What do educators do with diversity among students? Eliminate or reduce it? Maintain it? Increase it? Differences between groups can be reduced or eliminated by limiting the advancement of capable students or by increasing the advancement of slower students, as shown in Figure 1. Differences between groups can be increased by limiting the advancement of slower students or by increasing the advancement of brighter students, as shown in Figure 2.

Figure 1

Decreasing diversity by progress of

initially less capable students

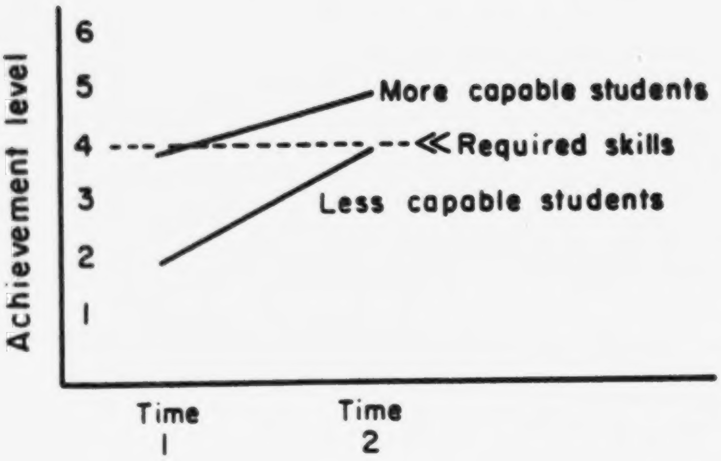
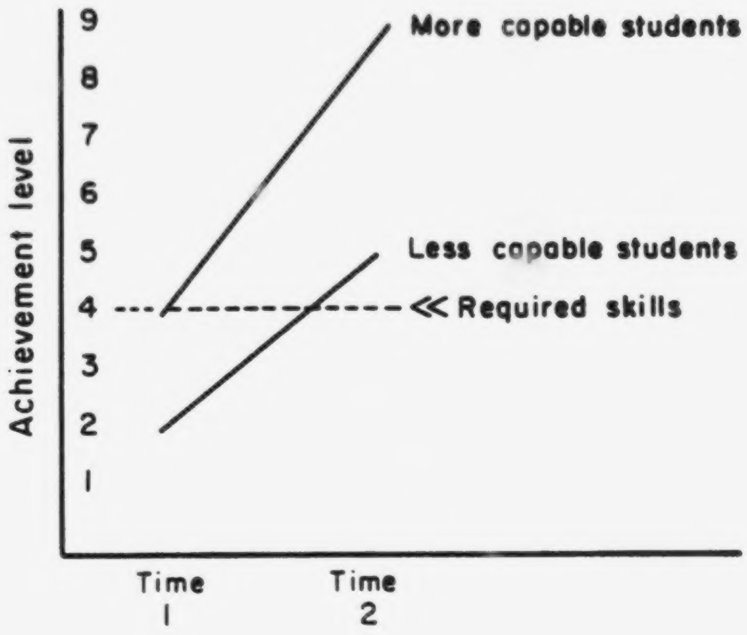


Figure 2

Increasing diversity by progress of

initially more capable students



The two figures show patterns that can occur under different instructional approaches as schools work toward their main goal of helping all students master required skills. Some methods of instruction are designed, in theory, to reduce diversity as shown in Figure 1, where the slope indicating improvement is steeper for less capable students. These include whole class instruction, mastery learning, remedial instruction, and instructional emphasis on minimum competency testing (Block & Burns, 1976; Brophy, 1983). These approaches mainly attend to the needs of average or slower students. They may restrict the progress of brighter students if they hold all students to the same basic curriculum, limit projects or advanced work, or use available financial resources for materials or staff to correct students' learning deficiencies.

Some methods of instruction are designed to increase diversity as shown in Figure 2, with a steeper slope showing improvement for the more capable students. These instructional approaches include individualized instruction, homogeneous grouping, gifted and talented programs, and advanced placement courses. These approaches encourage students to learn at their fastest, personal paces. They are often instituted to respond to the needs of brighter students, although, in theory, all students could benefit. The progress of slower students may be restricted or reduced if these programs use financial or staff resources that would otherwise be used for remedial instruction.

Schools may choose to minimize or eliminate differences in achievement in some subjects and increase diversity in other subjects. For example, schools may purposely organize programs so that all students have equal exposure and mastery of basic skills in elementary school science or middle school civics, sex education, nutrition, or other courses on social responsibility or personal health and safety, or in courses that require or benefit from social interaction (e.g. middle school physical education, high school history, psychology, or mass media). At the same time, schools may organize other programs to increase diversity in skills in math, science, literature, or creative writing to meet the needs and prevent boredom of advanced students who, by middle or junior high school, may be up to 4 or more years ahead of other students in these subjects. Educators may use a variety of instructional approaches to purposely organize and monitor a mixture of standard, advanced, and remedial courses to provide students with experiences in heterogeneous and homogenous classes.

Increasing diversity over time. The patterns of diversity become more interesting when more students or more years in school are considered, as shown in Figure 3. The hypothetical students in this figure are at least 2 years apart in skills by grade 2. Over the years, the diversity in students' skills increases so that by grade 4, the three groups are at least 4 years apart in skills. This accentuation of differences is a common pattern across the grades throughout the school years.

Figure 3

Hypothetical progress of three students

or groups of students over four years

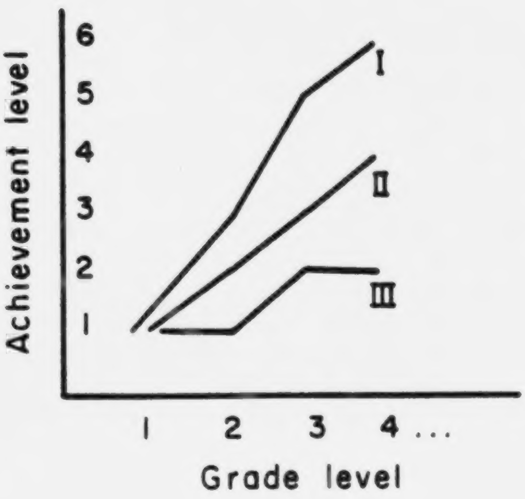


Figure 3 raises many questions about the diversity of students' skills, especially about students who do not master the required skills at their grade level: Do students who are 2 years behind grade level in reading, for example, need to make 1 year of reading progress or 2? Is it feasible to expect double-speed in learning by these students to erase the disadvantage? Will students retained in grade 3, for example, also need 2 years to learn the skills required in grade 4? Do students need differently structured assignments, methods of instruction, rewards, grouping, evaluation, and time in order to learn skills that were not learned the first time? Can instructional approaches and materials be doubly or triply efficient to boost the skills of slow or failing students? Are students failures if they need more time to learn or is the school failing the students?

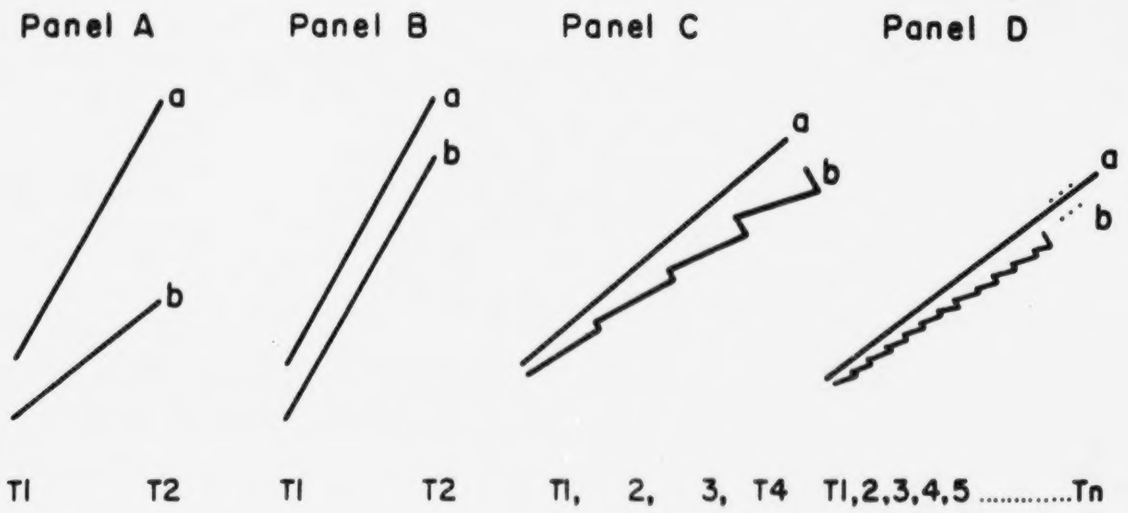
In part, the patterns shown in Figure 3 are accentuated when teachers ignore the diversity needed in the task structure (T) and make standard, daily assignments, knowing that many students in a group or class will fail or do poorly. The patterns are reinforced when only some students are encouraged to participate (A) or receive rewards (R). The patterns are all but fixed when effective remedial instruction is not provided to students who fall behind in their skills. Students in group II in Figure 3 may have less effective instruction than students in group I. Students in group III may have less effective instruction and may hold less positive attitudes about school or receive less support for school from their family. Thus poor or inappropriate instruction from the teacher, little or no social support, and low personal commitment or interest in learning may each reduce achievement over time. Groups II and III in Figure 3 may look like less effective students but the reasons for their slow progress may be due, in part, to the school's organization of instruction and social support for students who are slower learners.

Figure 4 shows four common patterns of progress of students who started out only slightly dissimilar. For this discussion, Time 1 (T1) could be September and Time 2 (T2) could be June of one school year, or entry and exit from elementary, middle, or high school, or any important start and end periods for student growth or change. Panel A shows that some students (line a) make rapid progress, and others (line b) proceed at much slower rates, although learning occurs for all students over time. In this case, students who fall behind do not make up lost ground and, consequently, fall farther behind the others. In some cases, the discrepancy between lines a and b widens to a point where slower students are making little or no progess, and are at high risk of failing subjects or dropping out of school. These high risk students usually receive little or no academic assistance or social support for improvement, in part because they are often absent or truant for large portions of time, or because remedial instruction is not offered, or if available, is not effective or socially acceptable.

Panel B shows equal rates of progress for students originally at different starting points. This is a common pattern when students are placed in two or more groups for instruction that proceed lock-step through highly specified curricula. For example, a slower reading group may read the same books as the faster group, but later in the year. The less able and more able groups make about a year's

Figure 4

Patterns of progress and rates of remediation for students over time


Panel A
a
b
T1
T2
Panel B
a
b
T1
T2
Panel C
a
b
T1, 2, 3, T4
Panel D
a
b
T1,2,3,4,5 ....Tn

progress in a year's time, but those who start out lower and proceed slower never fully catch up to the others. Or, in high schools, students in less demanding curricular tracks take required courses (e.g. biology), but do not learn the same amount of information as students in regular or honors tracks. Some schools consider equal growth or gains (represented by the equal slopes of the lines) as important and as acceptable as equal scores. Other schools view this pattern as one that reflects a lack of adequate attention to average or slower students and keeps them locked in low status programs.

Panels C and D show two of many possible remediation models to reduce discrepancies in student learning in some skills or some subjects. Panel C shows a periodic remediation schedule, for example, at grades 3, 5, 8, and 10 for students who need to master basic skills in order to be promoted to upper elementary, middle school, high school (Frank, 1984). These correction periods or "gates" may require the retention of students for one full year, or may be accomplished with other strategies such as half-year remediation programs, after school programs, Saturday schools, or summer schools for students who need assistance in mastering the skills required for the next level of schooling.

Panel D shows a continuous correction plan. This plan may include daily corrective instruction, bi-weekly coaching classes, weekly Saturday schools, daily or weekly parent involvement in learning activities at home, weekly peer tutoring, annual summer school, or combinations of these or other practices to give more assistance, time, and support to students who miss key skills, fail tests, or are at risk of failing courses or grade levels. The rate of remedial instruction may vary as in Panels C and D, according to the teachers' organization of the task, evaluation, and time structures.

Patterns C and D were documented by Arlin, 1984, in his studies of mastery learning. Slower students who were given extra time to learn did master the required skills, but continued to need extra time to learn and longer periods of extra time with each passing grade. Thus, flexible time structures that supported learning academic skills helped students learn, but did not make them faster, or "equal" learners.

Student diversity and the need for remedial instruction are problems at all levels of schooling. Even if remedial instruction were highly successful in the first 6 years of elementary school, new discrepancies and increased diversity in academic skills and social and emotional development would require attention in the middle and high school grades. Indeed, remediation can best be understood as a continuous problem for students and a continuous process for schools, with students coming in and out of remedial classes and other special programs designed to assist learning. Even the brightest students attend some high school coaching classes to clarify confusing lessons; and sometimes the slowest students will make rapid progress in regular or remedial classes if the teacher's organization of assignments, participation, and rewards are appropriate and supportive.

Dealing with diversity with a social organization of remediation. Instruction in academic skills is only part of an effective remedial program. The other needed component is the _social organization of remediation_. By the "social organization of remediation" I mean the academic and social support systems for students who need more time or different methods or extra encouragement to learn required skills. This may be accomplished when the TARGET structures are responsive to levels of student ability and development.

It is no more odd for students to need 5 years to finish high school, than it is for students to take 5 or 6 years to finish college or graduate school. It is not strange that some students need 18 months to successfully complete algebra, while others finish the work in 9 months or less. The academic and social structures of schools are not presently designed to accommodate and support students who do not complete the prescribed work in the prescribed time. Indeed, where adjustments have been made, schools tend to reduce the amount or complexity of work required to fit the prescribed time, instead of allowing longer time to complete the prescribed work.

Students who fall behind or fail at any grade level experience humiliation and reduced self-esteem. Most remediation programs stigmatize the very students who are most in need of social and academic support and make it even more difficult for these students to learn. Private schools may make more flexible arrangements to support students who repeat grades or extend the number of years in school to complete academic requirements (Persell, personal communication).

Educators know that students learn when they are interested in the work, feel challenged, apply energy, succeed, receive rewards or personal satisfaction for their efforts, and when they can discuss new ideas and knowledge with teachers, peers, and parents. These factors are part of the social organization of remediation that must support slower students the same way they presently encourage successful students. Changing the TARGET structures would include providing appropriate levels of instruction and materials (tasks); including students in decisions about their academic programs and progress, and encouraging active rather than passive learning and high participation in class (authority); recognizing student effort and improvement (reward); promoting opportunities for positive interaction among many groups of students, and helping students move out of remedial groups into regular classes (grouping); providing clear information on how to improve to reach set standards (evaluation) and creating ample time to complete work so that participation and rewards are possible (time). Now, teachers establish these conditions in the learning environment for some students (especially brighter students) although they are important for all students (especially slower students). These organizational features are needed to build the interest, motivation, energy, follow through, and enjoyment that all students need in order to learn.

Research on the effects on students of contrasting models of remedial instruction are few and limited to the early elementary grades. McPartland & Crain (1987) call for studies on the types, timing, methods of instruction, coordination with classroom instruction, duration, costs, and effects of different models for remediation to redress problems created when schools set more rigorous standards for promotion and graduation. In this chapter we emphasize the need for research and development of _the social organization of remediation_ --studies not only on the design of the task structure to correct academic deficiencies, but also on the other TARGET structures that contribute to the overall quality of life in school.

5. Support for an Effective Students Movement

We have discussed three important aspects of an effective students movement to supplement the popular emphasis on effective schools -- student diversity, the alterable quality of key variables to improve school and classroom programs and practices, and the need for research and evaluation to measure the effects of school improvements on many student outcomes and to understand successful designs for remedial instruction to deal with diversity. Support for an effective students movement comes from two perspectives in the current literature. First, we examine the early and later studies of effective schools to suggest that an initial emphasis on effective students was shifted and weakened. Second, we look at the difference between "effective schools" and "school effects" studies to suggest that there is a tradition in research and evaluation that emphasizes effective students.

Initial vs. later studies of effective schools. Weber (1971), the "father" of the effective schools movement, began his work with more attention to students than those who followed him (e.g. Edmonds, 1979 a,b). Weber examined the organization of a single subject (reading) to identify effective teacher practices and student behaviors and outcomes. He noted the need for additional reading personnel to make the teaching of reading more effective, individualization in reading to make learning more effective, and careful evaluation of students' reading progress to detect and solve specific reading problems.

"Careful" evaluation of student progress (Weber) was transformed to "frequent" evaluation of student progress in later lists of effective practices. As a result, attention shifted from information on how to improve _student_ experiences and assignments to how to improve _teachers'_ management and accountability. The focus on "frequent" evaluation has resulted in an over-emphasis on testing to document school effectiveness and an underutilization of test results to guide the students' instructional programs or their own understanding of skills and needed improvements.

The emphasis was switched from the students' "pleasure in learning" (Weber), to a "safe and orderly" atmosphere conducive to learning controlled by teaching and administrative decisions. This change dramatically reversed the emphasis from the students' attitudes and motivations to teachers' rules and patterns of control and punishment. It takes hard work to go beyond a safe and orderly climate to develop a creative climate that is challenging, supportive, and enjoyable for all students. Creating such a climate requires an understanding of how the manipulable structures of school organization can be changed to offer opportunities and experiences to students who start out with different attitudes and achievements. Using the TARGET structures, a supportive environment may require a reward structure that recognizes and motivates all students for the progress they make regardless of their starting point. A challenging environment may be built on an authority structure that provides opportunities for teachers and students to participate in academic and co-curricular decisions that affect them. A challenging and supportive environment may require a task structure that takes students from wherever they start to increasingly advanced levels of learning, and an evaluation structure that sets clear incremental standards that can be understood by students as stepping stones to overall goals.

Although Weber emphasized "strong reading skills", later work emphasized "basic skill acquisition." This well-meaning extension from one subject to all subjects had an unintended result--attention was directed away from the measurement of well-specified reading skills for each student to the measurement of poorly-specified minimum competencies for the school as a whole. When Weber's approach was generalized from the classroom to the school level by later researchers, synthesists, and education evangelists, the subject-specific content of Weber's work was replaced by a too-general, too-simple prescription for school improvement. Not enough attention was given to differences in grade levels, subjects, or diversity within populations of students. The redirection may account for the common complaint from educators that the effective schools literature is too vague to guide daily educational practice. Despite the good intentions of the researchers and the remarkable impact of this work on practitioners, it may be that more useful results will occur in the future with the reinstatement of Weber's original emphasis on practices for promoting effective students.

Effective schools vs. school effects studies. Even before the effective schools movement became popular, educational researchers conducted school effects or school productivity studies to build a knowledge base about the importance of particular variations in school and classroom environments for specific student outcomes (see for example, studies by Alexander & Cook, 1982; Anderson, 1970; Averch et al., 1974; Brookover et al., 1979; Coleman, et al., 1966; Coleman, Hoffer, & Kilgore, 1983; Epstein & McPartland, 1979; McDill & Rigsby, 1973; McPartland & Epstein, 1977; Moos & David, 1981; Murnane, 1975; Rutter, Maughan, Mortimore, & Ouston, 1979; Summers & Wolfe, 1977.)

The distinction between effective schools and school effects studies is important because the research questions and purposes of the two types of studies differ. Effective schools studies aim to identify successful, existing practices in schools within the present range of variation. School effects studies aim to identify or design new and improved practices to extend the present range of variation in useful educational approaches. The difference in approaches and purposes can be understood by comparing the way research questions might be phrased in the two types of studies.

An effective schools study question would ask:

> What methods of teaching are used in schools where students have higher-than-expected achievement test scores or greater-than-expected gains in test scores, given the socioeconomic status of the families of the students in the school?

Schools would be selected and labeled "effective" that showed higher-than-expected achievement scores for 2 or 3 years in a row, or, that showed equal growth in scores for students from less-educated and better-educated families. A researcher would list and describe practices used in the effective schools that might account for the gains by students. The researcher might conduct additional studies to compare the first list of effective practices with new observations or reports from other schools identified as "effective." In most studies of this sort, the focus is on student achievement test scores at the school level or grade level, especially of children from economically disadvantaged families. Little or no attention is given to classroom level measures of students, or measures of teachers' practices or the organization of TARGET structures in specific subjects.

A school effects study question would ask:

> Which of two or more differently organized math (or English, or other) classes (e.g., specifically different ability grouping, decision making, and reward structures) has significant, positive effects on the students' math (or other) achievement, attitudes, and other outcomes?
>
> Or: Which of two or more differently organized schools (e.g. different tracking and grouping, participation, and time schedules) affects students' graduation rates, participation in activities, race relations, self esteem, and other attitudes and achievements?

Methods and approaches would be labeled effective if, in those classes or schools, students or identifiable subgroups of students showed significantly higher gains in achievement, attitudes, or other outcomes, compared to students in typical or control classes or schools.

Both kinds of questions are useful, but each yields different information for school improvement. Effective schools questions help identify currently effective schools, and may help educators disseminate information on some useful teaching and administrative practices. School effects questions test specific practices or new designs for their effects on students' academic and affective outcomes. Results from school effects studies can change or improve the way math or other subjects are taught or the way schools and classrooms are organized to benefit student learning and development in ways that are different from existing practices.

There are a few examples of new approaches that developed from school effects studies at the Johns Hopkins Center for Social Organization of Schools. For example, studies of the effects on students of differently designed task and reward structures (e.g. DeVries & Edwards, 1973) resulted in new classroom processes to organize student learning in teams--including Student Team Learning (DeVries, et al. 1980; Slavin, 1983) and Team-Assisted-Individualization (Slavin, Madden, & Leavey, in press). Basic research on the effects on students and parents of teachers' practices of parent involvement (Becker & Epstein, 1982; Epstein 1986a) informed the development of the Teachers Involve Parents in Schoolwork (TIPS) process (Epstein, 1986c) to help teachers revise the classroom authority structure to organize parent involvement for more effective students. Neither of these processes would have emerged from effective school studies as they are typically conceived.

It would be useful to combine "effective schools" and "school effects" approaches to study student diversity and to promote more effective students. From five to twenty practices are identified as necessary for effective schools from different research studies and syntheses (Purkey & Smith, 1983), but information is not available on which elements at which grade level are more important than others for teachers' and students' effectiveness (Firestone and Herriott, 1982). It would be possible and profitable to use the effective schools literature as the basis for a series of school effects studies on how contrasting organizations of instruction influence the academic and social development of students.

For example, the effective schools literature asserts that teachers should have high expectations for their students. This admirable goal must be translated into manageable practices based on the alterable structures that teachers can change in their classrooms -- e.g. measures would be needed of student starting abilities to define the diversity of skills and to establish realistic expectations for students' improvement. Teachers would need to select or design and assign appropriate tasks; offer valued rewards to all students; involve students in evaluations of their progress, and so on. School effects studies of the results of different designs of the TARGET structures to set and to meet realistically high expectations for all students would be more helpful to practitioners than the simple call for "high expectations."

As another example, effective schools studies assert the virtue of a "businesslike" atmosphere in the classroom. Teachers can organize productive, businesslike environments in many different ways. One strategy involving the authority structure may increase students' dependence on the teacher for directions whereas a contrasting strategy may increase students' independence in their learning activities. One businesslike environment may require students to compete against their peers for a few rewards, whereas a second approach may encourage students to cooperate with their peers for many available rewards. Thus, school effects studies on different strategies to create businesslike atmospheres could assess the impact of contrasting organizational designs on the class climate and on several student outcomes. These studies would be more helpful to practitioners than the simple call or untested ideas for "businesslike" classrooms.

Recent reports by national commissions and educational commentators offer many suggestions for school improvement, but little evidence on the effects of particular reforms on students. For example, one sensible sounding suggestion to raise graduation requirements may mean either better educated students (National Commission on Excellence in Education, 1983) or fewer educated students, if students are forced or dropped out of school (McDill, Natriello, & Pallas, 1985). Similarly, the recommendation that all students take the same academically oriented program in high school (Adler, 1982) minimizes the importance of student diversity and obscures the need for attention to the organization of remedial instruction at the elementary and secondary levels.

Other suggested reforms are similarly based on insightful but unscientific analyses. One suggestion is to give students the same teacher for high school math and science to reduce the number of different students that teachers must teach, and the number of different teachers that students must get to know (Sizer, 1984). On this topic, educators should be calling for "school effects" studies with control or contrasting classes to determine how this practice affects student attachment to adults, satisfaction with school, and knowledge in subjects taught by one vs. two experts.

The effective schools literature is a reminder of the text book lessons used to train teachers and administrators (Bickel, 1983). The educational reform literature is ideological and inconclusive, with an unending list of possible improvements. There have been few demands for pilot tests, experiments, research, or evaluation on the effects on students of particular reform strategies. These would be needed for schools to make informed judgments about whether to accept or reject specific suggestions. A scientific approach to improving schools would require programmatic and longitudinal school effects research and evaluation to produce cumulative knowledge on the importance for teachers and students of particular school and classroom practices (Rowan, 1985).

If teachers and administrators had reliable information about how the organization of different, alterable school and classroom structures affected students' basic skills, higher order thinking, social maturity, and other aspects of learning and development, they could purposely select --mix and match-- particular organizational forms to reach academic and other goals. In so doing, they would be deciding how to organize their schools for more effective students.

Summary: Focus on Effective Students

Effective schools must be defined, ultimately, in terms of effective students. Despite the fact that the effective schools movement has generated much optimism about improving schools, there has been too little attention to defining programs for developing more effective students. There has been an overemphasis on teachers' and principals' behaviors and a lack of attention to the diversity in students' achievement and development, or the meaning of that diversity for school organization, classroom practice, and educational evaluations. Seeley (1981) reminds us that the product of education--learning--is not produced by schools, but by students with the help of schools, parents, peers, and many other forces and resources in the community. He criticizes efforts to expand the delivery of education services without changing the relationships among schools, teachers, students, families, peers and communities.

Delivery of instruction refers to the knowledge and skills of effective _teachers_, but important relationships in school contexts refer to the development of effective _students_. These relationships can change and improve if educators understand the manipulable structures in schools and classrooms that create opportunities and experiences that help students learn. Of course, there must be both effective teachers and effective students in our schools. But this obvious fact has not been so clear when the attention has been so overwhelmingly on the teacher (Hawley, 1985) and so little on the diverse students in school and classroom contexts (Bossert, 1985; Stallings, 1985).

In addition to knowing that they can improve schools in general, educators must have a working knowledge of the manipulable aspects of school and classroom organization that determine how students are asked to conduct their learning. Through key structures such as the task, authority, reward, grouping, evaluation and time (TARGET) structures, school environments may promote or destroy students' achievements, positive attitudes toward school, independence, self-direction, and social skills. Presently, these structures are organized in most schools to meet the needs of the bright, successful students. But, they must be made responsive for students who are currently unsuccessful. The goal is for the social organization of advanced, regular, and remedial instruction to support and challenge all students, making school as important, enjoyable, and useful for those who need more time or different methods to learn as for those who learn more quickly.

A research and evaluation approach to school improvement is required to study, monitor, and revise the features of school and classroom organizations for positive effects on student learning and development. We need useful measures and diverse methods for studying school and classroom environments, student characteristics and multiple outcomes to determine whether and when programs and practices are promoting effective students.

If we continue to study, measure, and create policies about how teachers teach, we will, surely, make advances in more effective teaching. This may be accomplished without attention to differences in approaches required by students at different grade levels, in different subjects, and with different learning histories. If we begin to study, measure, and create policies about how all students learn and how different outcomes are influenced by basic, manipulable school and classroom structures, we will begin to make progress in understanding effective students.

NOTES

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2. Research on alterable structures in schools and classrooms and their effects on academic and nonacademic outcomes for students has been conducted for many years by the social scientists of the School Organization Program of the Johns Hopkins Center for Social Organization of Schools (now the Center for Research on Elementary and Middle Schools). This approach represents the Hopkins Center's "school" of sociology of education. Researchers at the Center have studied different TARGET variables over the years, including Karl Alexander, Henry Jay Becker, Jomills Braddock, David DeVries, Keith Edwards, Doris Entwisle, Joyce Epstein, Denise Gottfredson, Gary Gottfredson, Nancy Karweit, Nancy Madden, James McPartland, Edward McDill, and Robert Slavin.

3. In the next section of this report, we present a chapter in which we argue that each of the TARGET structures may be linked to particular, mediating motivational forces which in turn affect these outcomes and that these are important in home environment as well as the school for student success.

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Family Structures and Student Motivation:
A Developmental Perspective

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Family Structures and Student Motivation:
A Developmental Perspective

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Across the school years, families and schools simultaneously influence student motivation to learn. The concurrent influences on children by families and schools may be similar or different, positive or negative, and more or less effective -- but the influence is inescapably synchroneous from preschool through high school. Earlier volumes in this series on motivation in education focused on individual behavior and characteristics of classrooms (Ames and Ames, 1984; 1985). This chapter initiates a discussion of the family's role in motivating children to learn.

We define motivation to learn, much as Brophy (1986) does, as the students' desire or willingness to engage and persist in academic activities in school. Motivation to take the role of student is different from motivation as an appetite for knowledge or as a competitive force to surpass others. Students fall along a continuum of purposeful learning, just as they do along a line of yearning for learning, ranging from weak to strong motivation to do assigned schoolwork. This type of motivation may be less dependent on ability or achievement than other types. Motivation to take the role of student, to learn, complete assignments, earn credentials, and move on to the next phase of education or work, applies to all children -- not to just a few with unusual traits, skills, or goals.

We extend the boundaries of motivation to learn to include the home as one of the major settings where this motivation is developed, supported, and demonstrated. Motivation to learn at home is evident in children's commitment to study, their completion of homework, their discussion of school experiences with the family, and even their work at school that draws on activities at home. Parents can structure the home environment to encourage or discourage children from succeeding as students.

In Epstein (in press c), we argue that the degree of "overlap" in family and school environments helps to explain patterns of student motivation, learning, and development. In this chapter we look more closely at family-school overlap by identifying parallel structures in families and schools that affect interpersonal interactions, motivation, and student outcomes.

There are theoretical and practical benefits from characterizing schools and families in parallel terms to study environmental effects and person-environment interactions (Holland, 1973; Stern, 1970). Using structurally consistent concepts and measures, Epstein and McPartland (1979) examined the effects on students of family and school authority structures. Epstein (1983a) extended this approach with consistent measures in a three-way, longitudinal, person-environment-environment model to account for the simultaneous influence of child, family, and school characteristics on student development. Using this interactive model, we examined how students changed when they experienced similar or different patterns of decision making at home or at school. We found that students who were "ready" for decision making gained more in independence over one year if their families and schools offered many opportunities for decision making. This was not true for students who were not ready for these opportunities and demands. We also found some compensatory patterns of socialization. For example, students who were ready for the challenge gained more in independence if their schools offered opportunities for decision making, even if their families did not.

In reviewing our and others' studies, Hess and Holloway (1984) suggested that the fit between home and school deserve more detailed analysis. In this paper, we introduce structures at home that affect children's motivation to learn that are analogous to structures at school that organize instruction and classroom management. Then, we discuss the developmental nature of these structures, their influence on motivation, and academic and nonacademic outcomes.

Family Structures and Student Motivation

Which family variables influence motivation and commitment in school? We could discuss warmth, affection, or encouragement -- key affective qualities of family interactions. But these terms are too general to help us understand how particular, manipulable aspects of home life affect student motivation to learn. In an earlier paper, we discussed variables that help teachers organize classroom instruction (Epstein, in press a). These classroom structures -- the Task, Authority, Reward, Grouping, Evaluation, and Time (TARGET) structures -- have important analogues in the family. The structures have been ordered heuristically in an acronym to suggest aspects of family organization that should be the "target" of attention to improve family influence on their children's motivation to learn.

TARGET Structures in Families

The _task structure_ (T) at home concerns the range of children's activities, including _household chores_ delegated by parents; _learning opportunities_ designed by parents; _homework_ assigned by teachers; and _play and hobby activities_ selected by children. It includes all activities directly or indirectly related to school learning that are conducted at home by children alone, with parents, siblings, or others.

From family to family, children's tasks vary in type, number, and frequency. Some children do many household chores every day and few school assignments. Others do many school tasks and few chores. Tasks vary in the degree of independence or the amount of contact and cooperation with siblings, parents, or friends permitted or required to complete the task. Tasks at home vary according to the sex and age of the child, and become more difficult as youngsters mature. Variations in sequence, scope, variety, interdependence, and rates of change are manipilable and measurable qualities of the task structure at home that affect whether children are challenged and motivated to think, act, and learn.

Family attention to learning starts in infancy when parents teach their toddlers to walk and talk -- basic motor and cognitive skills. Family tasks concerning learning continue in the "child-rearing" activities that prepare the child for entry to school and for interactions with teachers, children, and others outside the home. Parents teach their young children to button clothing and tie shoes (self-care), to tell time (self-monitoring), to enjoy stories and poems (preliminary academic activities), to know their name, address, and phone number, identify colors, shapes, letters (reading readiness), and, sometimes, to begin to read, write their names, and write letters and numbers (actual school activities). Research suggests that parents provide important opportunities for their children to build conversational skills (Snow, 1977), other reading and linquistic skills (Hess, Holloway, Dickson, and Price, 1984; Marjoribanks, 1979; Tizard, Schofield, Hewison, 1982) and abilities to solve problems and anticipate the future (Sigel, 1981).

There is wide variation among families in the types and sequences of school-like activities conducted with infants, toddlers, and young children prior to their formal entry to school. But research consistently shows that preschool preparation by families contributes to student readiness for "real" school, initial positive attitudes toward school, fewer grade retentions, and continued advantages for achievement in school (Andrews & associates, 1982; Gordon & Breivogel, 1976; Lazar & Darlington, 1982; Leichter, 1974; Rubin & associates, 1983; Schaefer, Hunter & Watkins, 1986; Sigel and

McGillicuddy-DeLisi, 1984; Weikart & associates, 1978; Zigler and Valentine, 1979).

Activities at home may be even more diverse than at school in their origin and design. Tasks for children may be originated by parents, teachers, children, siblings, other relatives, friends of the child or family, contacts in the community, church, or by technology at home (e. g., t.v., radio, computers, video recorders). In design, unlike many classroom tasks, activities at home are more active than passive. School tasks have been criticized for emphasizing passive learning where the teachers lecture and the students listen (Goodlad, 1983; Sizer, 1984). But most tasks at home engage the children in active learning and interacting with others. Physical movement, talk, help, individualized timing, and exchanging ideas occur on most tasks at home. The tasks may be novel and exciting, including learning games and challenging discussion. These characteristics could make school-related tasks at home especially motivating.

Through the elementary and secondary school grades, some families continue to plan and conduct school-like tasks with their children to influence children's motivation and achievement (Baker & Stevenson, 1986; Clark, 1983; Epstein, 1983; McDill & Rigsby, 1973). But many families need help from the school to understand how to structure tasks at home that are challenging and appropriate for their older children (Epstein, 1986a; Rich, 1985). The school can provide useful information to parents on the school curricula, specific objectives for learning, course requirements and options, and other information. Family activities and discussions about school, about current events, newspapers, TV, movies, and other topics of interest contribute to children's cognitive skills, attitudes about schoolwork, and daily work in school. These conversations do not require parents to have advanced education, but do require parents to recognize the importance of talking with their children at all grade levels to build verbal skills, participation and leadership skills. When home activities concerning school or learning are based on useful information from the school, the task structure at home overlaps the task structure at school and may strongly and positively influence student motivation and school success.

Informed families can work with the school to add novel, enriching, and remedial activities to the school program. Families may use community or private resources to provide children with experiences not available at the school (e.g., sports, music, drama, volunteer work, foreign language). Although a few children show early talent or unusual interest in particular subjects (Bloom, 1982), most children build a repertory of talents and interests over the school years and then choose one or two special interests. The task structures at home and at school largely determine the range of options from which children select special interests.

The authority structure (A) at home concerns the types and frequency of children's responsibilities, self-directed activities, and participation in family decisions. This includes the extent of shared decisions about the rules, tasks, rewards, peer group experiences, evaluations, and time allocations (the other TARGET structures) that organize family life.

Patterns of children's participation in decision making vary from family to family. In some cases, parents make all or most decisions and exercise near-total control over children's behavior at home. In other settings, children have real and frequent input to decisions about their own activities at home and to many family decisions. In some families, the opportunities for decision making and independent action increase as the children mature, whereas in other homes, the types and levels of participation remain the same, despite changes in children's abilities. Some parents fear that sharing authority with youngsters will reduce their ability to control their own children. Other parents extend too much authority too soon to their children, leading to inappropriate activities, poor decision making skills, poor parent child-relations, and weak motivation for school learning.

The authority relations within a family affect parent-child relations and influence children's motivation in school. If children and parents have a history of sharing decisions and discussing ideas together, children may be more likely to discuss issues and topics raised at school, describe problems, and seek help from parents. In contrast, if children and parents share few decisions, children may be less likely to talk about school problems, or ask for help on school work, thereby maintaining some personal control over that aspect of their own lives.

Children who are included in important decisions at home may be at an advantage at school if their interactions with family members prepare them to interact successfully with their teachers and participate in discussions and projects with other students. These skills should increase students' positive attitudes toward school and improve the quality of their experiences in school (Epstein, 1981).

There is a convincing literature starting with Lewin, Lippitt, and White (1939) that suggests that authoritative (not authoritarian) relations lead to more self-reliant, explorative behavior in young children (Baumrind, 1971) and in older students (Elder, 1971; Epstein and McPartland, 1979). By including children in the family decision making process, parents can help children learn that their decisions lead to their own successes and failures. This feature of family life is not limited by the children's or parents' abilities. Low- and high-achievers can become increasingly self-reliant through opportunities for decision making at school (Wang and Weisstein, 1980), and through opportunities for self-direction at home (Epstein, 1983a).

The reward structure (R) at home concerns the procedures and practices to recognize children's efforts and accomplishments. Parents may pay attention to few or many types of behaviors, achievements, or talents of their children. They may acknowledge small or great gains in skills, and they may emphasize effort or ability in learning. The reward structure includes the overt and subtle practices that demonstrate parents' warmth, affection, attention, and appreciation of their children.

Parents' praises, prizes, and punishments differ by type and frequency, but a key factor for children's motivation to learn is whether parents place more or less value on school-related skills and improvements. Thus, parents who reward sports, mechanical, music, or spelling skills will influence their children's beliefs about the importance of these skills. When families emphasize, minimize, or ignore the importance of school activities, they show how deep the connections are between home and school and influence whether and how children are motivated to invest their time in schoolwork.

Many parents recognize and reward the major cognitive and motor accomplishments of infants and toddlers with intangible rewards -- hugs, excitement, encouragement -- or tangible rewards -- candy, toys, and so on. The child's first step, first words, a new song, crayon scribbles, and other new skills are given recognition. During the preschool years, parents assist and reward children for writing their names, learning the alphabet, for making a painting. Early rewards help establish these behaviors as part of the child's own, internal motivational system. Young children consider walking, singing, the alphabet, bike-riding, and painting as skills that are enjoyable and rewarding for their own sake. They work to master these skills and continue learning.

Once the children are in school, however, many parents lack information about how to monitor and reward children for increments in their school learning. Although most parents say they *value* education, few systematically and knowledgeably reward their children for incremental progress in schoolwork. Schools can help parents understand, monitor, and reward students' attitudes and achievements. With each new grade level, more parents need assistance from teachers, administrators, guidance personnel and others to understand where their children are starting from, what they are working toward, and how parents can recognize and reward progress in order to maintain or boost motivation to learn.

The *grouping structure* (G) at home is the analogue of one at school that determines whether, how, and why students who are similar or different on particular characteristics (e.g., sex, race, SES, ability, goals, or interests) are brought together or kept apart for instruction, play, or other activities. Families, like schools, guide their children's contacts and interactions in peer and friendship groups. In so doing, they may directly and indirectly influence motivation to learn.

Patterns of interaction *within the family* can influence children's personalities and interpersonal skills outside the family. "Warm" children may make friends easily whereas "aloof" children may not (Maas, 1968). Families provide opportunites that encourage nurturant behavior such as child care responsibilities (Whiting, 1986), or care of elderly family members. Family training in prosocial behaviors such as comforting, sharing, defending, helping, cooperating (Sigel, Dreyer, and McGillicuddy, 1984) may influence children's social relations with their peers and their success on learning tasks and projects that require cooperation and understanding of others.

Patterns of interaction arranged by the family shape the grouping structure at home. Parents bring toddlers and preschoolers together in formal or informal play groups at home or in the neighborhood. Families may select day care, nursery, kindergarten and other schools to provide or prevent their children's interaction with other groups of children. At one extreme, some parents "home-teach" their children in order to prevent children from attending the same school with "less desireable" peers (Williams, Arnoldsen, & Reynolds, 1984). At the other extreme, parents send their children to boarding school to assure their membership and total immersion in a group of peers. Private or public schools may be selected so that children interact with or avoid particular groups. Family choice of schools and influence over peers and friends may affect children's motivation to learn because the peer group is a powerful social context with expectations for the attitudes and behavior of group members.

Families influence their school-aged children's selection of friends by their attitudes and discussions about children in the neighborhood, their attitudes toward cross-sex, cross-race, and other friendships. Parents' attitudes and their own behaviors toward children and adults of different races, ethnic groups, family backgrounds, physical features, and disabilities can encourage or discourage their children's contacts and friendships. For example, parents' racial attitudes influence the childrens' racial attitudes and their cross-race choices of friends (McPartland, 1969; Patchen, 1982).

Parents help create a grouping structure at home by their invitations to children and by their interactions with the parents of other children. In some families, children's friendships are based on sports activities; in others, on trips to the library, museum, children's theater, and other school-related activities. Peer group activities at home that support school-like activities may be especially important for influencing children's motivation to learn and for demonstrating family and school connections. Parents can encourage their children and their friends to give high priority to schoolwork and homework by establishing family rules about completing homework after dinner before children can play or watch television. If homework habits are coordinated across families in neighborhoods, especially for young children, the peer group will be more likely to support schoolwork.

Family practices can influence how children balance their loyalties to parents and to peers. Open communications at home increase the likelihood that children will approach parents as well as their peers for advice and information. Parent and sibling relations also influence attitudes and work in school, and may balance or counter peer pressure that minimizes the importance of learning in school (Isherwood and Hammah, 1981).

Most families lack information about how to influence peer and friendship groups during the school years to boost motivation and learning. Schools can help families understand the importance of the peer group, their children's social skills and needed improvements, the organization of academic grouping, group projects, and team activities at school, and how families can support their children's peer relations. Schools can build a strong contextual effect among families by mobilizing all or most parents to emphasize and support school work. Schools can provide parents with classroom and grade level address and phone directories to encourage communication among parents about school-related activities. Families also demonstrate their support by attending assemblies, team sports, demonstrations, award ceremonies, or performances in which their children and their friends and classmates participate.

The evaluation structure (E) at home concerns the standards that are set by parents and children for learning and behavior, the procedures for monitoring and judging the attainment of those standards, and the methods for providing information about performance or needed improvements. These judgments may lead to rewards or punishments, thus the evaluation structure is closely linked to the reward structure.

Evaluations of children at home about academic, social, or other matters may be public, private, or personal; comparative or individual; and frequent or infrequent. Public evaluation is open for others to hear. At home, evaluation of one child may take place in front of siblings, other relatives, or friends. Private evaluation is between the child and one other -- a parent, sibling, friend, or another relative -- but always without any other audience. Personal evaluation is conducted by the child alone, in accordance with his/her own goals. Personal or intrinsic evaluations may rely on values and standards adopted from the family, but the messages, ratings, and course of action for improvement are self-initated and self-directed.

Comparative evalutions require each child to be judged according to a fixed standard or in relation to what others do (e.g., the top scholar, a sibling, a friend, a parent at the age of the child, etc.). Individual evaluations are based on the child's history and improvement. Depending on other factors, frequent evaluations may reflect either responsive monitoring or over control of parents, and infrequent evaluations may reflect either parental neglect or faith in the children's abilities to proceed independently.

Evaluations about school work and progress may be explicit or hidden, offering children much or little information about their current status and relevant or irrelevant suggestions for maintaining or improving their status. The success of the family's evaluation structure for influencing motivation to learn depends, also, on the parents' demands on themselves for high quality work, and the public ways they analyze their own efforts.

Parents' commonly evaluate their children's behavior at home, but are often at a loss about procedures to evaluate progress and effort that concerns school work. Schools can assist parents by providing information on learning objectives, testing and grading policies, programs for remedial and enrichment activities, and other factors that involve the evaluation of students. Parents can serve as their children's advocates by monitoring the school processes to assure fairness in the evaluation practices, testing procedures, and children's placements. Parents can often balance or minimize the negative impact of some school evaluations that reduce student motivation and interest in school, such as those that are solely based on comparisons of one child against another.

The evalution structure at home offers or limits access to rewards from the family. If the parents' standards are too high or if the evaluation procedures are not clear, the family practices will lead to failure, disappointment, or alienation for many children. Under these conditions, children will not "measure up" to the parents' expectations, and will not qualify for rewards and support. An effective evaluation structure at home should lead children to a higher level of understanding about their own effort, abilities, and improvement. An ineffective evaluation structure can reduce motivation by withholding information needed to improve performance.

If the parents and children set clear, sequential, and attainable standards, the evaluation structure will challenge and support the success and satisfaction of most children and will encourage their continued motivation to learn. If the messages are immediate, corrective, constructive, and offered with affection (as opposed to delayed, uniformative, destructive, and uncaring), children's efforts are more likely to be directed toward learning and improvement. Parents can practice frequent, formative, individual evaluations that focus on the child's improvements to supplement the heavily summative school evaluations that often do not separate the learning process and effort from the test score or grade.

The time structure (*T*) at home concerns the schedules families set for children's activities and assignments. Families do not usually set rigid 50-minute periods for work or play, as most schools do. But, too much flexibility or unplanned time may result in a lack of dedication to homework or school study. In some families, a *laissez-faire* attitude about time management may be translated into school lateness, absence, incomplete or forgotten work, or poorly executed homework. In other families, so many activities are planned that a fixed-time schedule is needed to fit in music lessons, sports, homework, and other requirements. This, too, may diminish the family's emphasis on schoolwork, reduce the time the children spend on homework and reduce the quality of the work completed. The quality of time, too, plays a part. Families are rarely silent, but the level of noise can determine whether time for schoolwork at home is used effectively (Levine, 1983; 1984).

A recent study of adolescents (Csikszentmihalyi and Larson, 1984) shows that, on average, 41% of adolescents' time is spent at home compared to 32% in school and 27% in other settings. Home time is divided into leisure, eating, personal care, chores, and academic activities. The time spent at home can be structured to help a child carry out the role of student (Asp and Levine, 1985, 1983).

Students' assignments and personal rates for learning determine the time needed to complete homework or other tasks. For example, at the elementary school level, *slower* students spend *more time* on homework than brighter students (Epstein, 1985; Levine, 1984). Elementary school teachers tend to assign all students in a class about the same amount of homework, so slower learners take longer to complete the work. At the high school level, we find the more expected pattern -- *brighter* students spend *more time* on homework (Pennsylvania State Department of Education, 1984; Keith and associates, 1986). This may be because brighter students are in more demanding courses where teachers assign more homework, and because brighter students have developed more intrinsic motivation to learn and initiate more work on their own.

Parents can work with the schools to make sure that slower learners in middle, junior high, and high schools are not "written off" or short-changed in their courses and assignments just because they take more time to learn. Parents, teachers, and children need to understand how time for learning at home can best accommodate students' needs and boost motivation for learning.

Schools need to inform parents each year about the time needed at home to complete work on the average school night and on weekends. Then the schedule of family activities can be designed to support the time needed for homework and other activities.

At the elementary and high school levels, parent involvement (i.e., time spent) to assist or monitor homework can have positive effects on student attitudes and achievements, net of ability and family background (Epstein, 1982, 1985, and in press b; Keith and associates, 1986). Epstein shows that the teachers' practices make the difference on whether parents are involved at home on learning activities that can assist their children in school (Epstein, 1986a). Thus, teachers play a critical role in providing information to parents about how to use their time productively at home in ways that directly assist their children as students.

Links Among TARGET Structures

As at school, the TARGET structures at home are interconnected. For example, homework is a task, but completing it requires an appropriate time structure. Completing homework happily may require that the children participate in decisions about how, when, and with whom to do the work. Continuing to do homework every night, year after year, may require a grouping structure that places priority on homework before play, a clear, fair, and encouraging evaluation process so that students understand how to improve their work, and a reward structure that offers a valued commendation for good work.

Here we discuss a few of the other important links between and among the TARGET structures that may be especially important for children's motivation to learn.

The task, authority, and reward structures are importantly linked when children are permitted to choose tasks or choose among tasks for their own reasons -- e.g., to suit their personal feelings of competence and interests. Good and Tom (1985) report that when students are permitted to to choose tasks they consider challenging, they are more motivated to work, even for fewer rewards. There are many opportunities at home to permit children to choose among equally important tasks to help them build skills that improve the quality of their choices, learning, and commitment in school.

The task and reward structures at home are linked in several ways. For example, if parents reward performance and ability instead of effort and improvement, many students are likely to avoid challenging tasks (Dweck, 1984). Rewards define children's successes and lead to their preferences for particular tasks or subjects. And, extrinsic rewards tend to focus students' attention on the result of the task rather than on the learning that takes place.

The task and grouping structures at home combine to determine whether and which children work together on assignments. School work with others (siblings, friends) at home can increase mastery of a skill and promote social support for learning.

There are connections, too, between the reward and grouping structures. Rewards based on comparisons with others, instead of measures of personal improvement, tend to focus children's attention on their often fixed, relative position in a group, rather than on their own increasing abilities. Family reward structures can be designed to emphasize personal improvement and many skills or competition between the child and friends or peers.

The task and time structures at home are closely linked. If the tasks are inappropriate, or if the time to do them is inadequate, children will not be motivated to do the tasks. When the links between time and task structures are productive, students will increase their accumulated knowledge. For example, educationally oriented homes are organized so that children spend more time reading than doing household chores (Asp and Levine, 1985). And, the organization of time at home for learning extends beyond the school year. Heyns (1978) suggests that time at home during the summer months on school-related tasks can affect how well students succeed in school the following fall. Again, the school can be helpful in suggesting strategies and specific tasks for productive use of time at home on weekends, holidays, and summer vacation.

Effective connections among the task, authority, and time structures at home may assist student motivation and learning at home. Scott-Jones (1980) makes an interesting distinction between two types of learning activities of first-grade students that she observed in the homes of black, low-income families. Among brighter students, the children initiated learning activities as part of their play, and were assisted by a parent as needed. Among slower students, the parents initiated learning activities in ways unrelated to the child's play. Child-initiated activities are likely to be inherently interesting. Parent-initiated activities that are not integrated with play and that are not designed or guided by teachers nor coordinated with school expectations and requirements may be uninteresting and disruptive to learning. Schools can help parents of children with learning problems to understand how to help their children at home by prescribing "family friendly" tasks to boost student motivation to learn and to master needed skills.

The links between the evaluation and authority structures build important motivating characteristics. For example, from early childhood on, parents may set standards for self-direction, so that children know they are expected to do things on their own. The children may be evaluated on whether and when they can play outside alone, walk to school without parent or older child, complete homework without reminders, take care of other children, say "No" to drugs, and so on. If parents and children set goals and standards together, the children will be more likely to understand the evaluations they receive, feel pride at meeting the standards, and be ready to raise their own expectations for their performance.

If children seem to lack motivation to learn, parents may need to examine the TARGET structures at home, singly and in combination, to see if there are organizational weaknesses that are discouraging children's commitment to school work. In the next section, we discuss how these structures need to change as children change to influence motivation to learn.

TARGET Structures at Home and Student Development

The TARGET structures at home can be more or less responsive to the changing abilities, needs, and accumulated skills of children and parents. Lipsitz (1984) suggests that schools promote student motivation when they are designed to meet the developmental demands created by changes in children's biological, cognitive, personal, and social growth. Stipek (1984) summarizes important developmental issues in achievement motivation. Epstein (in press a) discusses how teachers can design the TARGET structures in classrooms to be responsive to student development and diversity. Similarly, family practices can be designed to respond appropriately to changes in child development.

From childhood to adolescence, youngsters increase in independence, responsibility, understanding abstractions, understanding themselves and others, resolving conflicts, memory skills, and other academic and social skills (Ruble, 1980; Simmons, Blyth, Van Cleve, & Bush, 1979; Stipek, 1984). Parents' skills, knowledge, and parent-child relations also change (Maccoby, 1984; Sigel, Dreyer, & McGillicuddy-DeLisi, 1984). Although many parents _gain confidence_ about interacting with and guiding their children, many others _lose confidence_ in their ability to help their children with schoolwork (Epstein, 1986a).

Parents need to understand how family organizations can change as children get older. Schools can help by providing full, useful, and understandable information to parents about the children and the programs at school as they change from year to year. The TARGET structures at home can help parents focus on important aspects of family life, especially as these pertain to school subjects and skills.

The task structure (T) at home can meet developmental demands by including increasingly challenging activities for older children (Ruble, 1980; Veroff, 1969). Research suggests that older students prefer challenging tasks. And, the more able a student feels, the more likely he or she is to seek challenging tasks to test knowledge and extend accomplishments (Kukla, 1978). Thus, older and younger children who have mastered a skill will be motivated by more challenging tasks. And, older children who have experienced repeated failure will be more likely to avoid certain tasks.

Many families understand that tasks for infants, toddlers and preschool children should be appropriate, challenging, enjoyable, and based on the youngster's prior levels of ability and changing interests. Parents buy toys and games that are recommended for certain ages to motivate play and learning. Or, parents teach toddlers or preschoolers new words and skills based on what the child already knows. But most families are not well-informed about age-appropriate, changing tasks for school-aged children that will motivate learning and school success. Schools can play important roles in helping families revise the task structure at home to meet new levels of skills and new courses of study by providing information, examples, and specific activities for home learning (Becker and Epstein, 1982; Epstein, in press a; Rich, 1985).

The _authority structure_ (A) at home responds to student development by providing older children with increased opportunities for independence, responsiblity, self-direction, and participation in family decisions. Classes at school designed to encourage student involvement become more participatory and permit more decision making from grades 5 - 12 (Epstein, 1984). Students make more choices of courses and activities, and teachers offer less direct and less constant supervision. At the same time, classes for older students may become more formal and stylistic, with more lecturing by teachers and less active learning by students. Thus, some middle, junior high, and high school classes become _more_ restrictive, _less_ challenging, and permit _less_ independence than classes in earlier grades (Brophy & Evertson, 1978; Eccles, Midgely, & Adler, 1984). School authority structures vary in responsiveness to students' readiness for increased independence.

Similarly, family authority patterns change over time. Maccoby (1984) suggests that the transfer of power from parent to child occurs more slowly than had been supposed. A period of cooperative co-regulation, shared decision making, parental supervison and children's self-direction occurs in middle childhood on the route from full dependence on their parents in infancy to independence in adulthood. Youniss and Smollar (1985) note that there is greater parent control and child consensus up to about age 10, and an increase in parent-child negotiation, compromise, and revisions of requests in later years. We found that the number of family rules and regulations *decrease* and opportunities for student participation in family decisions *increase* from age 10 to 18 (grades 5 - 12). There are, of course, wide variations among families in the number of rules, types of participation, and rates of change in these family practices. We have shown that the rates of change in family rules and decision making have independent effects on student attitudes and behaviors. Families that withhold or prevent increased participation in decision making may seriously limit student motivation and learning (Epstein, 1983a; 1984).

A responsive, changing authority structure at home may actually increase parental authority and prolong parental influence. Older children may be more willing to seek advice from parents when they have continuing evidence that their own ideas are taken seriously. Meeting developmental demands for greater independence may have important effects on student motivation to learn and to stay in school.

Parents who are aware of the need for changing authority structures can monitor the practices at home and school to assure that their children are offered increasing opportunities for independence and self-direction. This may be especially important for slow learners who often need remedial academic instruction, but who, like all children, need opportunities for independence and self-direction to match their social skills and to maintain their motivation to learn.

The reward structure at home can meet developmental demands created as children gain in self confidence and as they revalue different kinds of rewards and recognitions (Maccoby, 1984; Ruble, 1980). Young students or students starting to learn a particular subject or skill may need more frequent rewards, recognition, and encouragement, whereas older students or those with clear strengths in a subject may need less frequent recognition to maintain their motivation to learn new skills. Young children may respond to small, frequent, demonstrative recognition and social reinforcement (hugs, praise, candy, ribbons, stars) while older children may be bolstered by less frequent but more dramatic awards (e.g., money, a trip to a ball game or movie, trophies, small gifts related to an accomplishment) or by more subtle recognition (e.g., privately offered praise and encouragement). (Also, see Stipek, 1984, for her discussion of developmental patterns in evaluative feedback.)

The rewards older children value are different and more varied than those of younger children. But, whether frequent or intermittent, attention and recognition from the family continues to be important for children at all grade levels. The goal is to create conditions at home so that, over time, more children feel intrinsically rewarded by learning.

There are some interesting contradictory patterns of results in research on children's understanding and use of the concepts of effort and ability, how "success" is measured, and how rewards are distributed. Some researchers report that young children place a high value on effort, whereas older children place greater value on ability (Kun, 1977). Young children believe that if they try hard, they are successful, regardless of their results. Older children believe that if they get high grades they are successful, regardless of their effort. These beliefs and definitions may change as parents and teachers begin to emphasize and reward high marks, with little attention to effort.

Other researchers suggest that older children (age 10-12) begin to recognize the importance of effort in judging whether they and others deserve rewards for completed tasks (Weiner and Peter, 1973). The discrepancies in whether older children recognize effort or ability or equate effort and success may have to do with whether the child is focusing on rewards for him/herself or for others, or whether many or few rewards of different value are being distributed. Older children may be more sensitive to the social justice in giving some recognition for effort, but giving more recognition for success and ability. These patterns are not fixed. The design of the reward structures at home (or at school) can, for example, emphasize and encourage older children to continue to value effort and improvement.

The conflicting ideas about the effects of age on children's beliefs and attitudes towards effort and ability are complicated by the fact that as students enter middle school or junior high, their report card grades go down, even as their overall competencies go up (Peterson, 1986). Middle and junior high schools are larger than elementary schools, and students are compared with new groups of children who also were good students in their own elementary schools. With more demanding tasks and more competitive rewards, many who had received top grades receive just average grades. The same redistribution of report card grades may occur at entry to high school, when new tasks and greater competition in larger schools revise the reward and evaluation structures. For many students, report card grades in high school decrease although their knowledge and competencies increase.

These changing patterns of rewards in schools have important implications for family reward structures. Most families lack information about older students' achievements and progress in school at the very time the children would benefit from knowledgeable guidance and discussions at home. If such information were provided to parents by schools, more families would be able to help children understand the discrepancies between lower school grades and greater personal abilities, maintain a sense of self-esteem, and maintain their motivation to learn and to complete high school. Families also can design and support family rewards for improvement and encourage the development of instrinsic rewards for learning -- processes that can supplement school structures that depress motivation to learn.

The *grouping structure* at home needs to change as students expand their social circles. Family control over peers and friends changes over the years from infancy to adolescence. Early childhood contacts with peers are controlled largely by the family. Later, contacts with peers are controlled more by the school than the home. As the years pass, the accumulated friends, classmates, and acquaintances at school may assume increasing influence, although families continue to influence contacts and friendships made in the neighborhood, after school, and out-of school. Older students interact with peers and select their friends from wider boundaries than younger students (Epstein 1983c; 1986b).

There is a delicate, changing balance between peer pressure and family expectations as children mature. Youniss and Smollar (1985) note that parents continue to guide adolescent children at the same time relations among peers and friends are becoming more complex and intense. Epstein (1983c) shows that there are simultaneous patterns of influence of parents and friends (and schools) on students from grades 6 - 12. Awareness of the developmental patterns in children's social groups, peer pressures, and dating patterns may help families maintain a healthy balance between family and peer influence. If children think their families are not interested in their friends, they may overemphasize the importance of conformity to peer standards and values and repudiate family and personal values, including the importance of learning at school.

Interestingly, youngsters in middle childhood and early adolescence may place even more importance on conformity to peers than do late adolescents, who become more flexible in their thinking and focus more attention on their individuality and personal style (Minuchin, 1977). Parents who understand this developmental pattern in peer group relations can be more purposeful in their requests, demands, or questions about peer groups. Families can work to mobilize the positive influence of peers and friends to increase motivation to learn (Epstein, 1983c; Youniss and Smollar, 1985).

The evaluation structure (E) at home can be developmentally responsive to students' increasing abilities to understand the causal connections between plans, actions, and results in learning. Young children do not usually pay attention to the causes of their performance, nor do they analyze how to improve their work (Harter, 1978). An effective evaluation structure at home may focus children's attention on their own work and efforts. Older children can benefit from family evaluations that provide detailed reasons for the judgments about their schoolwork, attitudes, and behavior, and useful suggestions and plans for improvement. Families can increase the extent to which older children are involved in setting standards for and judging progress on schoolwork and learning. Over the years, there should be a decrease (but not disappearance) in the frequency of parents' evaluations as children increase their ability to evaluate themselves.

The _time structure_ (T) at home needs to change as students increase their ability to work intensively. School activities, hobbies, talents, leisure activities, and part-time work become more complex and time-consuming. Over time, families can organize practices to support the deeper and more sustained investments of time that children require to master school subjects. When time structures at home do not make these adjustments, children will lack the mastery of skills that provide older students with self-confidence as learners.

There are important connections between time in school and at home. As the number of structured, achievement-related activities in school increase, students receive more homework from several teachers and need more time for work and study at home. Many parents do not know how to continue to monitor and guide older children's time at home. Families need information from the schools each year through high school to make needed changes in time structures for school work at home, and to guide and monitor students' decisions about time use.

Earlier, we discussed a few of many connections among the TARGET structures. There also are connections among the developmental changes in these structures. For example, a family may change the level of challenge in the _tasks_ assigned to older children at home, but this will be more successful if concurrent changes are made in the _authority_ structure to give them increasing control over their own activities. And, the _task_ and _reward_ structures need to change together so that as tasks become more challenging, appropriate rewards are offered as incentives for effort and as official recognition of valued work.

The authority and evaluation structures also need to change in concert. Along with increased opportunities for decision making, families must permit children to bear the consequences of their decisions and can help them evaluate their choices and the results. Also, changes in the task, authority, and time structures are linked, as families help children accept increasing responsibility for planning their time for week-night and weekend homework and study, as well as their time for household chores, hobbies, time with friends, and later. part-time work.

All the TARGET structures combine to influence motivation in the broadest sense. For example, intrinsic motivation to learn, to get pleasure from the task itself, and to feel rewarded by new knowledge may show a curvilinear pattern in development. For most children, learning is intrinsically motivating in infancy and early childhood. For many children, there seems to be less intrinsic motivation about learning (school tasks) during the school years (Maehr, 1984). This may be due, in part, to inappropriate tasks, rewards, patterns of participation and other organizational weaknesses in the TARGET structures in school and at home. On average, intrinsic motivation to learn increases again in late adolescence and adulthood, as interests crystallize and as youngsters gain greater personal control of activities and time.

Families can assist their children in many ways across the school years. Children must adjust to *expected changes* in schools, such as promotion to new grade levels or transitions to elementary, middle, or junior high school, and *unexpected changes* such as transfers to new schools because of family moves or school closings or redistricting. Family discussions, shared planning, monitoring problems, and other preparations can help children meet changes that are part of the natural order of school life. Family assistance for smooth transitions to new grades, new levels, new schools, and new instructional groups through the organization of TARGET structures can help children maintain positive motivation for learning at difficult times across the school years.

Families can also take some responsibility as members of official parent advisory committees or as individuals to monitor school structures to keep schools "on TARGET" for their children's level of development. The task, authority, reward, grouping, evaluation, and time structures at school should change from year to year to continually motivate students. The curriculum should show measurable increments in the amounts and kinds of opportunities for problem solving, analytic thinking, creative thinking, planning, and self-evaluation.

Family structures and practices can deeply influence children's values, goals, and school-related behavior and achievement. In the next section, we examine how family TARGET structures may affect motivation to learn and student outcomes that are important for school success.

TARGET Structures at Home, Motivation, and Outcomes

We suggest that the TARGET structures at home may relate to _different_ motivational forces and student outcomes, as shown in Table 1. The top section of the table, for example, suggests that the _task structure_ (T) at home may be linked especially to the student's level of _curiosity_ and _anxiety_ about learning (see column 2). Well-designed tasks should increase curiosity and challenge students to think and work without creating undue anxiety about learning. This will occur when tasks are appropriate for the students' abilities and prior knowledge, and when they include a degree of novelty and excitement to minimize boredom and maximize interest. Poorly designed tasks that are too easy for students will minimize curiosity and those that are too hard will maximize anxiety. Either inappropriate level of difficulty will create negative motivations that increase student withdrawal or alienation from school tasks.

If curiosity is energized and anxiety is controlled, positive outcomes should result, such as those described in column 3. Interesting, challenging tasks that awaken curiosity should produce positive attitudes about schoolwork and homework. And, if there is a good mix of school, household, and leisure tasks at home, the child should develop a balanced set of interests and goals which should lead to more successful performance of the roles of student, son/daughter, and self.

Table 1

Family TARGET Structures, Student Motivation, and Outcomes

TARGET structures at home <1>	Influence on motivating force <2>	Influence on student outcomes <3>
Tasks (T) at appropriate levels of difficulty. Balance in the number and kinds of household chores, school assignments, and leisure projects. Family discussions of school activities and assignments. Parent-child interaction about schoolwork. Novelty and variety in tasks. Change in tasks for new levels of ability.	Curiosity. Interest. Low anxiety about school. Task involvement. Interest. Challenge. Need achievement/achievement striving.	Attitudes toward homework and schoolwork. Performance of role as son/daughter, student and individual. Interest in school skills. Learning/Knowledge/Achievement. Understanding concepts of ability and effort. Understanding options for special interests, advanced skills, talents, occupations. Other competence/incompetence outcomes.
Authority (A) based on shared decision-making by parent and child. Emphasis on children as active participants. Opportunities for choice and autonomy. Change in rate and type of participation according to age, grade, and new abilities.	Internal locus of control. Personal responsibility. Low fear of authority. Efficacy Approach success-avoid failure.	Ability to solve problems, choose appropriate actions. Attitude toward authority. Knowledgeable use of the system. Independent, wise use of counsel help to learn self-directed behavior. Initiative, leadership, exploration. Flexibility of behavior. Other indepedence/dependence outcomes.
Rewards (R) based on parent recognition of improvement as well as excellence. Recognition of many different skills and talents, including school-related activities. Rewards for cooperative and competitive behavior. Responsive incentives. Appropriate balance of tangible and intangible rewards. Extrinsic rewards and development of intrinsic rewards. Change in rewards to meet new needs and abilties.	Self esteem/self concept of ability. Affection/Attachment/Low Guilt. Expectations for Success/Failure. Intrinsic motivation (to please self)/ extrinsic motivation (to please others).	Feelings of self worth Awareness of behaviors and attitudes valued by others. Cooperative/competitive behavior with parents, siblings, relatives, friends, classmates. Improvement vs. performance goals. Attitudes about learning/Incentive to learn. Attention to finished products. Other confidence/doubt outcomes.

-continued-

Table 1 cont'd

Grouping (G) that encourages interactions with other children with similar or different abilities, talents, and backgrounds. Family discussions of friendship, social behavior. Opportunities for social contact at home with siblings, friends, other relations that involve school-related activities. Grouping patterns and family emphases that change as peer group relations are revised.	Social status Influence Security Social motives, goals Empathy	Attitudes toward peers. Tolerance, acceptance, appreciation of group and individual differences. Popularity/acceptance from others. Negotiation, compromise, sharing, cooperation, and and other interpersonal skills. Social responsibility. Family identity. Other conformity/individuality outcomes, and other prosocial behaviors.
Evaluations (E) that establish family standards and clear expectations for school skills. Informative messages from parents for improvement on school skills. Monitoring and information systems that change with children's age and abilities.	Certainty/uncertainty. Information value. Prediction of success. Prediction of required effort.	Improvement/Awareness of progress. Internalized standards. Ability to compare self and others. Fairness in judgments. Plans for improvement. Setting future goals.
Time (T) that respects diversity in children's rates of learning. Opportunities for intensive study on subjects of interest. Balance in household chores, school assignments, hobbies with high priority on school-related tasks.	Sense of purpose Commitment Persistence	Completion of homework. Knowledge of personal pace for work and learning. Accumulated knowledge. Improved skills in management and organization -- e.g., planning, scheduling, completing tasks. Development of expertise in one or more subjects. Continued interest in learning. Other completion/quitting outcomes.

_continued-

Table 1 cont'd

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<1> The TARGET structures are described in terms of positive qualities. It should be understood that each component of each structure listed here or discussed in the text represents a continuum, e.g. more or less appropriate level of task difficulty, more or less shared authority, and so on.

<2> The motivating forces are discussed in these and related terms in numerous chapters in Ames and Ames, 1984, 1985; Ball, 1982; Ryans, 1980; Weiner, 1979, 1984. The simple terms in Column 2 stand for complex concepts and each represents a continuum, e.g. more or less curiosity, more or less anxiety, and so on.

<3> Each outcome is a variable that ranges on a continuum, e. g. children may be more or less positive in their attitudes, have low or high achievement, more or less independent, and so on.

The task structure at home can be organized to promote these qualities. Appropriately challenging tasks that are conducted by children at home should increase task involvement and lead to increased interest, knowledge, mastery of skills, and achievement.

The entries in the rest of the table show connections between the authority, reward, grouping, evaluation, and time structures with particular motivating forces and student outcomes. Here, we discuss a few examples.

We link the authority structure at home with the level of locus of control (see column 2 of panel 2). For example, high participation in decision making at home should increase children's feelings of internal control of their environment and attributions of success to personal action. These motivating forces should promote such outcomes as positive attitudes toward authority, more successful independent judgments, and better use of the school organization (see column 3 of panel 2). Students who assume greater responsibility for their own work have less reason to blame their parents or teachers for their failures and more reason to feel pride in personal successes. Greater self-direction means that students are making demands on themselves, and this may make them less antagonistic and more positive toward other authority figures, such as their teachers at school (Epstein, 1981).

In an earlier study, we found that family authority practices that sequentially increase children's decision making opportunities tend to increase feelings of internal locus of control and promote growth in independence (Epstein, 1983a). Greater internal control may also boost youngsters' abilities to state their own interests, make education and job plans, and improve other indicators that rely on independent thought and action. If the authority structure is too hierarchical or restrictive, children will not experience the high internal locus of control or sense of purpose needed for effective school learning and behavior. Dependent, externally-controlled children are not likely to feel that they can initiate ideas or actions or lead others, nor will they seek ways to make the school organization work for them.

Others, too, suggest that parent authority based on reasoning and shared power leads to more internal attributions and, potentially, more positive attitudes toward school and learning. By contrast, parental force and coersion are likely to promote external attributions in children (Dix and Grusec, 1983). Restrictive, authoritarian family practices and practices that are not developmentally appropriate place the child far from the position described by deCharms (1976; 1980) as an "origin" of behavior. Instead, children see that others are, in fact, in control of their successes or failures.

Positive reward structures at home should increase children's self-confidence, reduce guilt about success, and increase motivation to continue learning. These qualities should result in greater effort and commitment to school work.

Some families reward children only for the attainment of high test scores or letter grades (such as 90-100% or A's on report cards). These grades are not attainable by all students, even with great motivation and effort. A family reward structure based on top scores or comparisons with other siblings or other students may increase children's motivation to avoid failure rather than to improve skills. By contrast, some families monitor and reward *improvement* -- or "personal bests" -- attainable by all students with motivation and effort. This reward structure focuses on changes in the accomplishments of individuals and may encourage purposeful work (Ames, Arches, & Savell, 1986; Nicholls, 1984; Stipek, 1984). High self-esteem is likely to be produced, maintained, and increased for more children if the reward structure at home emphasizes improvement rather than top grades. This sense of self may be converted to postive attitudes about learning, attention to improvement, pride in completed projects, and other outcomes that thrive on acceptance and appreciation.

Positive *grouping structures* at home should help children improve their *social status*, *social motives*, and *feelings of security*. Students who have a sense of social support are more likely to concentrate on their academic assignments. Other students may spend time and energy thinking and worrying about their status in their family or peer group instead of their schoolwork (Marjoribanks, 1979).

Children's self-concepts are influenced, in part, by others' reactions to their ideas and behaviors (Minuchin, 1977). Peers and friends, then, contribute to children's awareness of self and appreciation of others. Epstein (1983c) shows that students with positive skills and attitudes who are chosen and kept as friends can influence the development of these qualities in their friends. Family actions, discussions, and values may initiate this process by influencing which friends are selected and kept by their children.

Grouping structures at home that minimize the importance of peers or that restrict contacts with others may reduce children's sense of security and capacity for empathy with others. Learning problems may develop if too much energy is directed to establishing security in a peer group, or if children lack the social goals and skills that help them work together in school with other students.

The evaluation structure at home provides information to children about their efforts and attainments. This information should promote children's sense of certainty about sequences of actions for learning and their ability to predict the level of effort needed to reach standards they and their parents set. This should result in more successful strategies for improvement, plans to obtain help needed to master skills, and more intrinsic and honest evaluations of personal progress.

Unfair or unclear evaluations at home may create critical gaps in children's ability to execute school assignments successfully, even if they were initially motivated to learn. Uncertainty creates barriers to action -- reducing children's willingness to invest effort in learning. Many families have high expections for their children, but many children do not reach the family's goals. The effectiveness of the evaluation structure at home (and at school) may largely determine whether parents and childrens' high hopes become attainments.

Time structures at home should increase children's sense of purpose, persistence, and performance on assigned tasks (Maehr. 1984). This motivating force should lead to better homework completion, greater accumulated knowledge, and competence. The time structures at home can help improve time estimation, allocation, and management skills. These skills may contribute to the development and maintenance of children's self-confidence in their ability to plan, control, and complete their activities, and should help students see how school and learning fit into their lives.

Implications for Research

Table 1 is far more complex than it looks at first glance. We suggest, for example, that each TARGET structure is directly linked to particular motivational forces, which in turn produce specific outcomes. The "true" influence process probably involves considerable overlap. For example, each of the TARGET structures may contribute to self-confidence about learning and all of the motivational forces working in concert should lead to improved academic achievement.

Research has supported some of the specific influence patterns suggested in Table 1 -- such as authority structure ---> internal locus of control ---> positive attitudes toward teachers (Epstein, 1981; 1983a), or time structure --->

commitment ---> completion of homework and accumulated knowledge (Levine, 1983; 1984). But most of the connections still require painstaking research.

The causal directions suggested in Table 1 (e.g., family structure ---> motivation -----> outcomes) are not one-way, fixed processes. For example, children's responses (such as high anxiety or low self-esteem) to family structures may cause the family to revise practices (e.g., motivation -----> family structure), and outcomes such as improved skills or failure may influence motivation as much as the family practices do (e.g., outcome -----> motivation). Thus, children's motivations may affect the design of the TARGET structures at home, as much as the other way around. And outcomes of learning and development, such as those shown in column 3 of the table, may have reciprocal influences on student motivation and family structures.

To sort these multi-directional effects will require testing alternative causal models to discover the direct and indirect, reciprocal and non-reciprocal, and longitudinal patterns that are involved. Research on parts of the story will also be useful, such as the effects of one or two TARGET structures at home on specific motivations and outcomes. We will need programmatic research -- a series of small but pointed studies -- to reveal patterns of influence of family and school structures on motivations and outcomes.

The TARGET structures are objective, manipulable, and measurable characteristics of the home and school settings, but it will take some work to compile or create reliable observational and survey measures of the dimensions of each structure. The motivating forces are, indeed, difficult to measure, but all are measurable. Indicators have been and can be devised, tested, and improved to estimate levels of self-esteem. curiosity, locus of control, and the other elusive qualities that demonstrate motivation to learn. The student outcomes also include difficult but feasible measures of achievements, attitudes, and behaviors.

The table's format intimates that these connections are solely the responsibility of the family. This is not the case. The family's successful organization of the TARGET structures concerning their children's motivation to learn in school depends heavily on the quality of information from the schools about children's programs and progress (Epstein, in press a).

There are, of course, other family factors that may influence children's motivation and success in school, including family income, parents' education, family size, and parents' marital status. To change these relatively fixed structures requires large investments of time or money. Or, they are personal prerogatives that may not be easily influenced by schools or other community agencies. Research is building that indicates that the alterable practices of families -- such as those that result from the design and execution of the TARGET structures at home -- affect motivation in school as much or more than the fixed family structures or static measures of family resources (Cf. Clark, 1983; Epstein, 1984b; Heatherington, Camera, and Featherman, 1981; Laosa, 1982; Scott-Jones, 1984).

The fixed family structures, however, cannot be ignored. They must be considered in the design and samples of studies, and they must be measured to compare their direct or indirect contributions to student development with the influence of the family's practices that concern school.

"Academic press" at home is a familiar concept that has been variously represented by the number of books in the family, parents' education, school supplies at home, or various other measures of family characteristics, routines and schedules that may impact student achievement (Asp and Levine, 1985; Brookover and associates, 1979; McDill and Rigsby, 1973). The theory of family-school overlap (Epstein, in press c) and the TARGET structures discussed here may give needed stability and substance to the useful but often ill-defined concept of "academic press."

Table 1 is a starting place. We need to understand motivation both as an important outcome (e.g., What factors promote curiosity, high self-confidence, and the desire to learn?) and as an influence on other school-related outcomes (e.g., How does curiosity affect the amount and kinds of learning? How does self-esteem lead to tolerance of others?). The table suggests that the TARGET structures _at home_ are important determinants of motivational forces that promote academic and non-academic outcomes that have implications for success in school.

Discussion

Parents do not usually discuss family practices using terms like "the task structure" or "the authority structure." But, parents do talk about their children's activities (Tasks), increasing independence (Authority), the parents' reactions to their children's good and bad behavior (Rewards), their children's friends, acquaintances, classmates, clubs, and cliques (Grouping), how parents judge their children's progress and needed improvements (Evaluation), and how the children and parents spend time (Time). The TARGET structures, then, are part of everyday life, although families differ widely in the extent to which they purposely organize and revise the practices that operationalize these structures. Positive family environments support and challenge children to learn. Negative environments distract childrens' attention from school, set up emotional or cognitive barriers to success, or misinform students in ways that reduce motivation about school activities. Our discussion leads to the following perspectives:

1. Family warmth, understanding, and belief in the importance of education are necessary but not sufficient qualities for building and maintaining children's motivation to learn. These affective dimensions must be linked to the specific practices that organize family life and that demonstrate the importance of education.

2. Motivation has been variously characterized by curiosity, high internal locus of control, attribution of success and failure, high interest in achievement, sense of

purpose, expectations for success, affection and attachment. low anxiety, high self-esteem, self-confidence and other energies that can be applied to learning. These qualities may be influenced by different treatments, opportunities, interactions, and experiences that occur under different family (and school) TARGET structures.

Motivation to learn is at once an external and internal process (Ames and Ames, 1984b; Ball, 1982). Students are motivated to learn by external conditions at school and at home that promote interpersonal interactions with significant others -- mainly teachers, parents, and peers. And, students are motivated to learn by internal forces -- individual ability, the desire for information, knowledge, or success, or the desire to please others or fulfill their own or others' expectations. The external conditions at home include the tasks offered or assigned, decision making opportunities and experiences, rewards and recognitions, peer and friendship relations, the fair judgments and advice for improvement. and the time allocated for various activities.

3. Family environments can be organized to increase or decrease student motivation and maximize learning and development. The TARGET structures at home are manipulable variables that can be revised to create positive conditions and correct negative ones. Low motivation to learn and poor achievement or inadequate social skills may not be due to low ability or low effort of an individual, but rather to the poor design of the TARGET structures at home (or at school). Inappropriate

instruction, inadequate opportunities for involvement, narrow and exclusionary rewards or recognitions, fixed or unfair competition with other students, inappropriate or unfair evaluations, or inadequate time for learning may produce low motivation and unsatisfactory learning in otherwise capable children.

4. The TARGET structures must change as children change. Families need to be aware of child and adolescent development and organizational management in order to effectively design and change family practices. If these do not change as the children change, youngsters may be at a real disadvantage in their school achievement and attitudes (Epstein, 1983a).

5. The TARGET structures at home do not operate separately. The more coherent the connections among the TARGET structures at home concerning school work, the more powerful the influence of the family on student motivation and learning.

6. The TARGET structures at home and at school are connected and their overlap can influence student motivation. It is not the family's responsibility alone to improve student motivation and success in school. It is, in large part. the school's responsibility to communicate with the family each year about the specific objectives and opportunities for learning, and about how the family can support the efforts of the school to maintain or increase their children's motivation (Becker & Epstein, 1982; Epstein, 1986a, 1987; Marjoribanks, 1979).

The family _and_ school TARGET structures create conditions for interpersonal interactions between parents and teachers, between teachers and students, and between parents and children that, in turn, influence individual motivation and learning outcomes. Information to motivate students comes from the school to the family _and_ from the family to the school. Teachers who deal with particular age groups can assist parents who must deal with their children at all ages. Parents with a deep understanding of their own children can assist teachers by providing information about a child's talents or special needs. The two-way communication between parent and teacher can bolster motivation if it results in positive attention to student progress.

Parents need to be aware of the importance of influencing their children's motivation as well as outcomes. It is as important for schools to help parents know how to increase their children's curiosity or boost self-esteem (as an investment in energy that leads to learning) -- as it is to help parents focus on achievement skills or completed homework. The TARGET structures and their links to motivation and outcomes can give form to family practices and interactions.

We have selected an analytic scheme that defines family organization in the same terms that we use to describe effective classrooms (Epstein, in press a). We call attention to the changes needed in these structures at home and at school to meet new levels of children's academic skills and social development. Families motivate children to learn by giving them a chance to think, to participate at home, to make choices among activities, to feel challenged in family discussions, to feel successful, to interact with others to test ideas and goals, and to take control of the way they plan and spend time. The discussion illustrates the complexity and diversity in child-rearing practices and children's actions and reactions that occur after preschool and through the high school grades, and that have serious consequences for student motivation, learning, and success in school.

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